A NEW

ART

OF BREWING

BEER, ALE,

And other Sorts of

LIQUORS;

So as to render them more Healthful to the Body, and Agreeable to Nature; and to keep them longer from Souring with less Trouble and Charge than generally Practised, which will be a means to prevent those Torturing Distempers of the *Stone, Gravel, Gout*, and *Dropsie*.

To which is added,

The ART of Making MAULT, *&c.*

AND

Several Useful and Profitable Things relating to Country Affairs.

Recommended to all Brewers, Gentlemen & others, that Brew their own Drink.

The Third Edition, with many large Additions never Printed before.

By THO. TRYON, *Student in Physick, who hath lately Published* Rules Physical and Moral for Preserving of Health, with a Bill of Fare of 75 Noble Dishes of Excellent Food. Price Bound 1 *s.*

Licensed and Entred according to Order.

London: Printed for *Tho. Salusbury*, at the Sign of the *Temple* near *Temple-Bar* in *Fleet-street*. 1691. Price Bound 1 *s.*

Books lately Printed, and Sold by Tho. Salusbury, *at the Sign of the* Temple, *near* Temple-Bar *in* Fleetstreet.

WIsdom's Dictates: Or, Rules Physical and Moral, for preserving the Health of the Body, and the Peace of the Mind, fit to be regarded and practised by all that would enjoy the Blessings of the present World. To which is added a Bill of Fare of 75 Noble Dishes of Excellent Food, far exceeding those made of Fish or Flesh. By *Tho. Tryon*, Student in Physick. *Twelves.* Price 1 *s.*

Arithmetical Rules, digested and contracted for the Help and Benefit of *Memory*; very Necessary and Useful, as well for Gentlemen and Tradesmen, as for Youth and Apprentices, in Mercantile Affairs; With Examples Illustrated upon the Rules. By *Arthur Leadbetter*, Schoolmaster, in *Bury St. Edmonds* in *Suffolk*. Twelves. *Price* 1 *s.*

An Exact Description of Ireland: Chorographically Surveying all its Provinces and Counties after a more Accurate, Plain, & Easie *Manner* than any before done in this kind. Shewing the Exact State of that Kingdom, and all the Principal Things that are necessary to be known. And Five Maps relating thereto, with a Geographical Dictionary for *Ireland*. Very Useful for the Right Understanding the present Affairs of that Kingdom. Done according to the latest Surveys, and agreeing with all the New Maps. By *Laurence Eachard* of *Christ-Colledge* in *Cambridge*. Twelves. *Price* 1 *s.* 6 *d.*

A most Compleat Compendium of Geography,

phy, General and Special; describing all the Empires, Kingdom, and Dominions in the Whole World. In a more Plain and Easie Method, more Compendious, and (perhaps) more Useful than any of this bigness. Very necessary for the right Understanding of the Transactions of these Times. Collected according to the most late Discoveries, and agreeing with the choicest and newest Maps. By *Laurence Eachard* of *Christ's-Colledge* in *Cambridge*. Twelves. *Price* 1 *s.*

A New Art of Making Wines, Brandy, and other Spirits, Compliant to the late Act of Parliament, concerning Distillation. Illustrated by the Doctrine of Fermentation; by various Examples on the Growths and Products of this Island. Recommended to all that desire to improve and advance those Liquors which are made from the English Growths. By *W. T.* Spagirick Physician in both Medicines, and Philosopher by Fire. *Twelves.* Price 1 *s.* 6 *d.*

Remarks upon the Dream of the late Abdicated Queen of *England*, and upon that of Madam the Dutchess of *La Valiere*, late Mistress to the French King, and now Nun of the Order of *Bare-footed Carmelites* at *Paris*. By Monsieur *Gurue's* Author of the *Harmony of Prophesies*, *&c.* Being the Paper the Publisher whereof was Condemned last Month to be Broken alive upon the Wheel, by the Parliament of *Roan*. Done from the French Copy. Printed at *Amsterdam*. *Quarto*, Price 6 *d.*

The Bragadocio: Or, The Bawd turn'd Puritan: A New Comedy. By a Person of Quality. *Quarto.* Price 1 *s.*

A Collection of many Wonderful Prophesies, relating to the English Nation, *&c.* *Quarto.* Price 6 *d.*

The

A NEW ART OF *Brewing Beer*, &c.

THough I have no other Deſign, in reſpect of Brewers, than only to ſave them a great deal of Pains, and no ſmall part of their daily Charge, and towards the reſt of Mankind, but an honeſt and moſt charitable Intention of Advertiſing them what may conduce, both to the Health of their Bodies, Tranquility of their Minds, and Advantage of their Eſtates; yet I am not ſo ignorant of the Worlds common Uſage, as not to expect, that offering to diſſwade from certain inveteral (but

miſchievous,) Cuſtoms, I am like to meet with no leſs than Hate or Reproach, or at leaſt Scorn and Contempt, from the greateſt part of thoſe whoſe welfare I would gladly promote. However, as the Conſcience of my own Innocence, and certain Experience and Knowledge of the Truth, of what I recommend will be a ſufficient Buckler againſt all the Darts of Envy, Ingratitude, Noiſe and Folly: So I do not Deſpair, but this ſmall Treatiſe may have the Happineſs to meet with ſome few, ſo little wedded to Tradition and their own Humours, as to be willing to hearken to the Dictates of Wiſdom, Reaſon, and Nature, whereever they meet them, or though communicated in an homely manner, by a very weak and imperfect Inſtrument. Methinks there ſhould ſcarce be any Man that hath ever entertained his Thoughts for one half hour, in a ſerious conſideration of his own Structure, and how, and by what Natural Means he doth ſubſiſt in this World, but muſt have taken notice, that as the Subſtance of our Bodies ſuffers a daily Expence, Decay, or Waſting, as well by

by the Action of our own innate (or inbread heat,) perſpiration of Spirits, and the more pure parts of the Humours through the pores of the Skin, Impreſſions of the Ambient Air, as by the common and more groſs Evacuations; ſo there is required a daily ſupply of Nouriſhment to repair and make good whatſoever is thus ſpent of the Store which is provided to ſupport and preſerve the Microcoſm.

To this end, as outwardly the All-wiſe and moſt Bountiful Creator has prepared variety of excellent Foods and Liquids; ſo inwardly, he has both given us Reaſon, Wiſdom, and Knowledge, (if we will hearken to, and exert it,) to diſtinguiſh which of them are at all times beſt and moſt requiſite for us; as alſo fixed the Members and Organs of our Bodies, in their ſeveral Places and Offices, to be aſſiſting and ſubſervient to each other, in order to the effecting of this admirable Work.

Of theſe the Stomach is the firſt and principal Agent, which, as it were a Kitchin, ſerves to dreſs and prepare all meats that are brought into it, and

by its Digesting Faculty reduces them into a white milky Substance, called *Chyle*, which passed thence through the lower Orifice of the Stomach into the *Intestines* or Guts, where it meets with two different Juices, the one of Choller from the Gall Bladder, the other a subacid Juice from the *Pancreas* or Sweet-Bread, which two being intermixed with the Chyle, and conteiting together, raiseth a kind of Ebulition or Fermentation, whereby the Chyle is further perfected, and as it passeth through the many Turnings and Windings of the smaller *Iteſtines*, it is, by the *Vena Lactea*, or milky Vessels, suck'd thence, and carried to the common Receptacles of Chyle, from which its convey'd by the *Ductus Thoracicus* up along the Breast, and at lenght is emptied into the left *Subclavian* Vein, where, mixing with the Blood in its return, it is immediately carried to the Heart, by whose constant motion of Pulsation, its driven forth again, and circulated with the Blood into all parts of the Body; the Chyle being thus intermix'd with the Blood, by a continued Circulation, is at length perfectly transf-

tranſmuted, and changed into Blood like the former.

The Blood being thus made out of Chyle, is, by the Arteries, conveyed to all the parts of the Body for their Nouriſhment, but the moſt pure and Spirituous part aſcends up to the Brain, (where, out of it, the Animal Spirits are made,) being the ſeat of Phanſie, Reaſon, Judgment, and Memory (which noble Faculties by thoſe Spirits are exerciſed,) as alſo of all Senſe and Motion; for from the Brain are all the Nerves (or Sinews) divided into all the parts, which cauſe a voluntary Motion in the Body, by which it walks, ſtands, lies down, labours, riſes, or uſeth any other Exerciſe, according to the Dictates of the Will, which cannot be done without the miniſtry of the Nerves.

Thus you ſee the whole Oeconomy of Nature, how, what is received at the Mouth is turned into Chyle by the Stomach, that Chyle into Blood by the Heart, *&c.* which being by the Arteries, (like ſo many Channels or conduit Pipes,) conveyed to the principal Member, and from thence

by abundance of ſmaller Veſſels into every part of the Body, Growth and Vigor at leaſt, a continual and ſuitable Supply ought to be thereby communicated to the whole.

But if what is taken into the Body, that is, our Meats and Drinks, be either improper in quality, or too great in quantity, it does in either caſe diſturb this curious Oeconomy, and fruſtrate Natures Intentions and Operations; for as unwholſom Meats and Drinks muſt needs give an unwholſom Nouriſhment, (the Effects always precipitating quality conſentaneous to its Cauſes,) and every thing delighteth to produce its *Simile's*, ſo if the Errors be only in quantity (which though too frequent, yet rarely happens without the other,) the Conſequence is ſtill worſe, exceſs in Eating and Drinking laying the Foundations of almoſt all Diſeaſes; for ſcarce could the Starry Influences, Injuries of Inſalubrious Air, various Seaſons of the Year, and the like External Accidents, have power to beget Diſeaſes, unleſs the Body were prediſpoſed to receive their Effects by ill Humours, is the Reſult of Indigeſti-

ons,

ons, and originally cauſed from the Faculties of the Stomach being abaſed and perverted; for when the Stomach is nautiated with diſagreeable Food or Drink, or over charged with Exceſs, it cannot conceal and turn ſuch Matters into good Chyle (but not being able to contain it long) through ill Crude, as it is into the Intrails, which being alſo oppreſſed, cannot ſo ſpeedily convey thorough them the indigeſted load, but it receiveth there an imperfect alteration; and ſo is by the Lacteal Veſſels carried to the common Receptacles of Chyle, and from thence to the Heart as before, which being indiſpoſed at the receipt of ſuch unprepared matter, is uncapable to convert its unequal Maſs into pure Blood, but it becomes Crude and Undigeſted, and in time acquires a Pernicious Sharpneſs, or ſome other evil quality, which being carried to the Brain, (the Fountain of Senſe and Motion) it clouds it with Vapours and ſuperfluous Humours, and its noble Faculties are thereby interrupted, the brisk and active Phanſie clogged and dulled, Reaſon mudled, and Judgment vitiated, and

all the admirable Store-houſe of Memory oppreſſed and confounded; from theſe nobler Parts and larger Veſſels, it is throughout the ſmall ones ſpread all over the Body, every part taking its unhappy ſhare, and by reaſon of the want of its due Concoction in the principal Members, cannot give due Nouriſhment to thoſe parts remote; but by theſe Errors often repeated, the Harmony of Nature is every where diſturbed, and the whole Body made a Magazine of corrupt Humours, which (like home-bred Traitors in a City) are continually ready to let in fierce and cruel Diſeaſes upon the leaſt External Attack, or (if that be wanting) will from their own Malignity (as Domeſtick Rebellions and Inſurrections are cauſed in ill govern'd States) creates Diſturbances within, endangering the Peace both of Body and Mind, and even threatning Subverſion to the Throne of Life. By what has been ſaid, it appears of what vaſt Importance, due Conſideration, and Caution in our Meats and Drinks is, not only for the Securing Health of Body, Prevention of Diſeaſes, but alſo in order to the ob-

obtaining Serenity of Mind and Calm Affections, and the improving all our Intellectual Faculties, 'tis an old Rule, *The Paſſions of the Mind follow the Temperatement of the Body*; for ſuch Diet as you uſe, ſuch will be your Blood; and as your Blood is pure, or impure, ſuch will be your Spirits, Natural, Vital, and Animal, and conſequently all Functions and Operations of Body and Mind ſhall ſuitably be altered. Take a Man never ſo modeſt, juſt and peaceable, let him over-charge himſelf with ſtrong Liquor, what a ſtrange Metamorphize, altogether incredible, did not the lamentable frequency convince us, ſhall it make, as if ſome Body had ſtoln away the Man, and left a Beaſt, or rather a Devil in his ſhape; ſo do we not daily ſee, that thoſe who addict themſelves to Gluttony (though not ſo ſoon, yet in time as certainly as the other) loſe their Parts, and of ſharp, witty, judicious Perſons, become Fools and ſtupid Sots: But of the Inconveniencies of improper Foods, and Exceſs even in the moſt Innocent, I have even at large Treated in other of my Writings; not omitting, as occa-

ſionally, to ſay ſomething thereof here; but the main Scope of this preſent Treatiſe ſhall relate to Drink, and ſome particular Foods, that may be proper for ſuch as are afflicted with the Stone and Gravel, and alſo the Sorts they ought to forbear (not ſo much to ſhew the odiouſneſs of that Swiniſh Sin, Drunkenneſs, nor in admoniſhing thoſe who think themſelves, and are by others numbred amongſt the moſt ſober, that even they are guilty of great Exceſs in the quantity of Liquor, as well as in the quality, which through ill Cuſtoms they ſwallow down beyond the neceſſity of Nature) but eſpecially to take notice of the ill quality of thoſe Liquors that are uſed by moſt People, ariſing from their undue Preparations, and to ſhew both the Reaſons how, and why the ſame do breed Diſeaſes in Human Bodies; as alſo to offer Remedies whereby the ſame may be prevented, and Drink truly refreſhing, exhilerated, and friendly to Nature, made and accommodated to General Uſe.

The firſt ſtep towards the Generation of the Stone and Gravel, as alſo the Gout, Conſumption, and various o-

thers

ther Diſeaſes of the like Nature, is the frequent drinking of ſtrong, hot, ſharp, intoxicating ſtale Liquors, and fiery prepared Drinks, as Beer high boiled with Hops, Brandy, Rum, old Wines, eſpecially Claret and Whitewine, which for the moſt part tend towards a Spirit, (*viz.*) Heat and Sharpneſs, becoming its predominating quality, all ſuch Drinks do, in ſuch Conſtitutions by *Simile*, contract and generate in the Paſſages and Ureters a hard gretty Subſtance, and of a mixt Saturnine Martial Nature, which is the firſt principle and beginning of the Diſeaſe called the *Stone*, and all its Symptoms and Attendances. Nor is that the only Evil thereby occaſioned in the Human Nature, for ſuch Liquors do too violently ſtir up and evaporate the pure eſſential Spirits, and as it were burn up the ſweet Oyl or Humour *Radicalis*, the Balſom of Life, whereby the Blood becomes Infected with a ſharp hot quality, and its free Circulation is obſtructed, which cauſes unnatural or burdenſom heat in all the External Parts, and lays the Seeds of various Diſtempers, according to the Nature

of

of each Conſtitution, Country, and Clymate, as Conſumptions, Palſies, Fevers, Gout, Stone, and the like.

Secondly, It is alſo to be noted and conſidered, the boyling of Hops two, three, or four hours in Beer, is a thing of a pernicious Conſequence, tho' it be unadviſed, and ignorantly practiſed, they falſly imagine that their Drink become the better thereby, whereas indeed they do by that Error, in a great meaſure, evaporate or ſuffocate the pure Spirits, which are the Preſervers of the ſweet friendly Balſamick Body, in all things whence the amiable, meek, or mild opening quality do exiſt, which whilſt any thing remain entire or unviolated, is the Moderater and Qualifier, or the harſh, bitter, aſtringent Nature; therefore Hops and Beer ſo boyled do prove very injurious to ſeveral Conſtitutions; for after Drink is thus prepared, the predominant quality in it is hot, fulſom, ſtrong, and bitter, and of a reſtringent nature and operation, prejudicial to Health, eſpecially to all ſuch perſons, who by their Conſtitutions are ſubject or inclinable unto the Stone or Gravel.

Thirdly,

Thirdly, It is further to be conſidered, That the boyling of Wort, or any Spirituous Liquor that is drawn or extracted from things, whoſe Body is opened by Firmentation, as Malt is in a very high degree, does not only deſtroy and evaporate the fine, thin, ſubtle Spirits and Quality, which are only capable of Penetration, but it does, as it were, fix or ſtagnate the whole, by which it becomes of a groſſer, fuller, or ſtronger taſte in the Mouth, which through Uſe, Cuſtom, and Ignorance is eſteemed a Vertue or Strength; but the contrary is to be underſtood; for thereby it becomes of a heavier Operation, lies longer in the Stomach, ſending groſs Fumes and Vapours into the Crown, and ſeldom fails to obſtruct the Paſſages, becauſe it hath loſt great part of thoſe fine penetrating properties, which is eaſily demonſtrated to your Senſes; (*viz.*) Unboyled Wort hath a fine pleaſant ſweetneſs in taſte, and it is of an opening, cleanſing quality and operation; and then taſte or drink ſome of the ſame Wort boyled with or without Hops, and you will find that this laſt hath

hath not only loſt its pleaſant taſte and ſweetneſs, but alſo its opening penetrating Virtues, by which it becomes of another Nature and Operation; which Fermentation does in ſome degree help, but it cannot regain thoſe fine, thin, penetrating Virtues and Spirits, that it hath loſt in the boyling, the fierce heat of the Fire being an utter Enemy to all ſpirituous Drinks, Liquors, or Cordials. It is alſo to be noted, that unboiled Beer or Ale do generally drink ſmaller in the Mouth than that which is boiled, becauſe its ſpirituous, ſweet qualities, are not ſo much deſtroyed, ſuffocated, or ſtagnated by the fiery heat of the Fire, as the other, but it moſt naturally warms the Stomach, and not ſo ſubject to ſend Fumes into the Head, and runs quicker through the Body, purges more powerfully by Urine, which are naturally Teſtimonies of its Virtues, and that the better Parts are preſerved in the preparation. Alſo it is further to be conſidered, That all ſorts of Drinks made without Fire, altho' with raw, crude Fruits, Apples, Grapes, and the like, as Wine, Cyder, and many o-

ther ſorts, are not only more ſpirituous and briſker in operation, but alſo more cleanſing and penetrating, if order and temperance be obſerved. But note, that all ſorts of fermented Drinks are much better and greater preſervers of Health when new, then old or ſtale, for Age does naturally conſume and turn the mild, ſoft, ſweet, opening, healing Virtues, into a hard, keen property; for this cauſe all ſtale Beer, old Wine, and Cyder, are far hotter in operation than new, and conſequently more prejudicial to Health, eſpecially to all ſuch as are naturally ſubject to the Stone, Gravel, Gout, or Conſumption, for it over-heats the Blood, and conſumes the Radical Moiſture; not but that the new Wine, Cyder, Beer or Ale, are endued with as great a quantity of Spirits as the old, as is manifeſt in Diſtillation: But ſo long as the mild, ſweet, opening Virtues remain intire, ſtrong, and powerful, this harſh Fire, keen or ſharp Spirit, is thereby moderated, qualified, or allayed by the ſweet Embraces of thoſe friendly Virtues; which friendly quality, Age turns into heat, ſharpneſs, and keenneſs,

neſs, as is moſt clearly manifeſted in the firmenting of all ſweet Bodies, which no Art can cure or bring back, it being eaſie by the help of the fiery Art to deſtroy all the mild, opening, friendly Properties of each thing, and turn or tranſmute them into their Original, *viz.* into a hot, ſtrong Spirit; but when this is done, there is no further Progreſs to be made, for it then ſtands in its original Qualities, and will admit of no cure; therefore it is eaſie to deſtroy, but hard to make alive, eſpecially in all Fire Operations; and remember this, that whenſoever any violence is offered to any thing, more eſpecially to things that has paſſed thorough firmentation, that the beſt and friendly Virtues do firſt ſuffer Injury, or Prejudice, which every one ought to underſtand, firſt in themſelves, and ſecondly in all other things, more eſpecially in all Preparations by Fire; therefore ſuch as would drink Beer, or Ale, more wholſom, may, unleſs they be too old to learn, and too obſtinate to be taught, obſerve the Rules following, which will make your Drink wholſomer, and ſave you both trouble and

and charge; and if neither Profit nor Regard to Health can wean you from the ſlavery of ſilly old Cuſtom, your Underſtandings are certainly miſerable already, and no wonder if your Bodies prove ſo in a little time.

Firſt, Make your Water or Liquor near boyling hot, then put juſt ſo much into your Maſhtub as will wet your Mault, ſtir it, and let it ſtand half an hour, which will diſpoſe the Mault the better to give forth its Virtues and Sweetneſs into the Liquor; then add your whole quantity of Water or Liquor to your Mault that you purpoſe to put in the firſt time, then let it ſtand one hour and a half, but if you would have your firſt Wort very ſtrong then two hours, if the Seaſon be not hot; then put what a quantity of Hops you think convenient into your Receiver, and let your Wort run to them, and after your Hops have infuſed an hour and half in your Wort, then ſtrain it off in your Coolers; you have done with your firſt Wort. Then put upon your Mault your ſecond Liquor near the ſame Heat as the firſt, rather cooler if any difference; but this muſt ſtand

on

on your Mault but one hour at moſt; then take what quantity you pleaſe of freſh Hops, and put into your Receiver as before, and let your ſecond Wort run to them; then take both ſecond Wort and Hops together, and put up into your Copper, there let them infuſe till your Wort is near boiling, but not boil; then ſtrain this alſo into your Coolers, which you have done with alſo. Now if you would inlarge your quantity, which is not proper, which in its due place I ſhall demonſtrate, then put up what quantity you think convenient of cold Water, and let it ſtand, not more than half an hour, and then run it off to ſome freſh Hops, and then put this third Wort, & alſo Hops, into the Copper, as you did the ſecond, and let the Hops infuſe till they are near boiling, then ſtrain it off into your Coolers, and you have done; but you muſt remember that your Liquor or Water do not boil, for boiling of Water does irritate and evaporate the ſubtle fine penetrating Spirits, whence the more friendly, mild, opening qualities do exiſt, which do make ſuch Water or Liquor more harſh, hard, and fix-

ed,

ed, which do render it not ſo capable to draw forth or extract the ſweet virtues of the Malt; for boiling of Water does open its Body, and ſets the Spirit on the wing; for this cauſe all Water that hath been boiled becomes of a colder, harſher, and harder Nature than that which hath never been fired, and therefore it will not prepare any Foods and Drinks ſo Natural, not to that advantage as that which hath not been boiled. And that you may be convinced of this Truth, boil a quantity of good River Water, and put it into a good clear Veſſel, and let it ſtand awhile, and then take a like quantity and put into another Veſſel, and let that ſtand the ſame time as the other, and you will find the boiled Water to ſtink, and never be ſweet again; but your Water which remains intire, not touched with the Fire, will alſo ſtink, or rather ferment, but then it will be ſweet and as good for any uſe as before; the Reaſon thereof is this, for the Fire doth force forth and evaporate the eſſential Spirits, and good preſerving Virtues, which do render of a dead, dull, phlegmatick, groſs Nature and

Ope-

Operation, as we have more largely diſcourſed in our *Way to Health*.

Secondly, it is a general Cuſtom to put up hot Liquor a third time on your Mault, or rather Grains, and to let it ſtand an hour or more, which makes a very ill ſort of Drink; for the firſt and ſecond Liquors have extracted or drawn forth all the brisk, lively, ſweet Qualities of the Mault, ſo that this third hot Liquor hath nothing to work on, or draw forth, but only a groſs Subſtance, ſtinking, harſh, bitter, or keen Quality, void of all the Seminal or ſweet Virtues. Now if there be any Goodneſs left in the Mault or Grains, it is weak and fainty, and the groſs, fulſom, Martial, Saturnine Properties are ſtrong, and have obtained the Aſcendant, and therefore they do in a moment ſwallow up the fading Virtue, and tranſmute it into its own Property; for theſe fiery Qualities do, with open Jaws, devour the friendly Virtues, and turn them into their own Nature, (*viz.*) into a fiery keen Quality, a meer *Caput Mortuum* Phlegm; for all things, when they have attained their higheſt degree, limit, or perfection, do, by degrees,

degrees, as it were, go backwards, and ſink towards their Original or Root whence they proceed.

Thirdly, By what hath been ſaid it appears, and ought to be conſidered, That the ſame Beer that is made of the third putting up of the Liquor on the Mault or Grains, is generally pernicious to Health: For, as is mentioned before, the firſt and ſecond Liquors have before drawn forth all or moſt of the good, ſweet, friendly Virtues, and there remains nothing but a dull, heavy, groſs Phlegm of a tart, ſowre Nature, which incorporates with the Liquor, and is of a very unpleaſing taſte, and ſmall, and then the common Cuſtom is to take this third Wort, (indeed not fit for Hogs-waſh,) and boyl it ſtoutly with the Dregs of the Hops, which hath been boyled ſeveral hours before in the firſt and ſecond Wort, which ſtill doth more increaſe the Miſchief; for the boyling of Hops totally ſuffocates, evaporates, and deſtroys, all the volatile Spirits and ſoft friendly Virtues, and there does nothing remain in them after ſuch boyling, but an harſh, bitter aſtringent, ſowre Property,

perty, which ſuch ſmall Wort in the boyling draws forth.

For this cauſe moſt ſmall Beer, eſpecially that which is made after Ale or ſtrong Beer, is injurious to Health, and the common drinking thereof does generate various Diſeaſes, but more eſpecially the Scurvy in the Blood; therefore all that do regard their Health, ought to forbear drinking ſuch ill prepared Liquors. The beſt Small, or Table Beer, is to be made by adding a large proportion of Liquor to your Mault, (according as you would have it,) and then mix the firſt and ſecond Wort equally together, for the Reaſons before mentioned, for all *Preparations* were intended to open the crude Body by Firmentation, or ſome other way, which do not only awaken, and ſet the fine Spirits and friendly Virtues on the Wing, but alſo in ſome degree excite the harſh, bitter, ſowre, aſtringent Properties, but ſtill the balſamick Virtues are moſt volatile, and readieſt to give forth themſelves, when communicated to a proper *Miniſtrum*, as appears not only in *The Art of Brewing*, but alſo in common Chymiſtry

the

the Spirits and good Properties give forth themſelves, and run off firſt, and afterwards the bitter, aſtringent, ſowre, harſh ones follow.

Fourly, The quantity of Hops for Beer, if you propoſe to keep it half a year, or a year, ought to be ſix or ſeven Pound to eight Buſhels of Mault, and ſo proportionable; but for Beer or Ale that is to be ſpent preſently, two, three, or four, to eight Buſhels will ſuffice. Alſo note, That all ſorts of Beer or Ale are beſt new, and much more agreeable to Nature, as I have mentioned before; for the longer any firmented Drinks are kept, the more they tend towards harſhneſs, keenneſs, and ſharpneſs, and the Saturnine, Martial Properties are thereby advanced, and the mild, friendly Qualities debilitated, for which reaſon all ſtale Beer does heat the Body, and much more diſorder it than new.

Fiftly, Another thing is in a moſt ſpecial manner to be noted, (*viz.*) That your Veſſels, in which you cool your Wort, ought to be well cleanſed; and alſo your Maſh-tub, (*viz.*) waſhed well with cold Water, which is better than

than hot; for boyling Water does, as it were, fright or drive back into the Wood, a certain, ſowre, fulſom, quality that the former Wort left behind, and which the Wood of the Coolers had ſuck'd in; for the humidity or ſweet quality that the Wood receives from the Wort, do preſently turn very ſharp, ſowre, and keen, eſpecially in hot Seaſons of the year, ſo that when the freſh, new, ſweet Wort comes into ſuch Coolers, it does moſt eagerly and powerfully attract and draw forth that lurking keen, ſharp, ſowre, quality that the Wood had received and retained, which will occaſion the whole to become of a ſharp quality, which is called (*Pricks*,) but hardly perceivable to the Palate; but when it is firmented, this evil quality gets the Aſcendent over the whole, which is the principal occaſion why Brewers Ale in hot Seaſons will not keep above four, five, or ſix days, or thereabouts. Now the beſt way to prevent this Evil is, that your Coolers are ſtill waſhed well in cold water, wherein ſome bitter Herbs or Seeds are infuſed 24 hours, as *Wormwood* gathered and dried, as

we

we have taught in our *Way to Health*; and after they are well cleanſed with this bitter Water, then expoſe your Veſſels to the open Air as much as poſſible you can, for nothing ſweetens and cleanſeth ſo much as Air; alſo avoid putting your Veſſels into Cellars, or any cloſe Places where the Air hath not its free influences. The like is to be done in the cleanſing your Tun in which you work your Drink in. The like is to be underſtood in Ovens; for if you bake ſpicy Foods, as Pies, and the like, and afterwards heat the Oven for ſmall Bread, ſuch Bread will be tinged, and ſmell ſtrong of the former things, that is, if the Oven be heat preſently; but if the Oven ſtands open two or three days, in which time thoſe ſpicy qualities will evaporate; for the Spirits of things are ſo quick, powerful, and ſubtile, that they penetrate even the hardeſt of Bodies, which neither Fire nor Water can preſently extinguiſh, but they remain as it were intire and fixed, until a ſuitable ſubject matter be offered, into which, as by Simile, they retreat, and therewith readily incorporate, and therefore re-

member your Friend the Air; and to prevent this and many other Inconveniences, expose your Vessels to its free Influences; for no Element hath so great power to cleanse, sweeten, and to give true Life to every thing, according to the nature of each, as Air; and where it has its free Circulation and Influence, it destroys all Putrifaction, Vermine, and evil Scents. But because Brewing is become a Trade, and such must Brew three or four days in a week, therefore they have not sufficient time to expose their Vessels to this cleansing Element, as Housewives, and others, that Brew only for ther own private Families; it will therfore be convenient for them to Copper, Lead, or Tin their Coolers over, as also the Mash-tub or Tun they firment or work their Drink in, but Copper and Tin is best, which will in a great degree prevent the sowring or pricking of their Ale in Summer, and their Beer will have the same advantage, for the sweet Spirits cannot so easily penetrate those hard Metalline Bodies, nor will so great a quantity of Humidity enter, and that which does

does will not become ſharp, nor ſowre as in wood, having no ſuch ſubject matter to work on.

It is alſo to be noted; That your Wort ought to ſtand very thin or ſhallow in your Coolers, for that will preſerve it from freetting and growing ſharp or keen, if the other Circumſtances before-mentioned be obſerved. Moreover, your Wort ought to be, as it were, quite cold, before it be put together to work; for if it be ſet together too hot, it will firment ſo violently, and in a moments time irritate and awaken the hot, ſharp, fiery Spirit, which ſhould not be ſtirred up, which ſpends and deſtroys the pure fine Spirit and ſweet Body, and conſequently cauſe your Beer or Ale to grow ſtale too faſt. Nor ought you when your Beer or Ale is in the Tun, to beat your Yeſt or Balm into it, as the Cuſtom of ſome Brewers is, eſpecially in and about *London*, which is very prejudicial to Health, and ought to be reſtrained by ſome Law; for this beating of the Yeſt into the Drink does ſo mix, and as it were incorporate them together, and flatten or ſuffocate the

fine penetrating VIrtues, that in its firmentation the groſs excrementious Matter cannot ſeperate from the finer Parts, by which means it does retain a ſtrong, groſs, and fulſom ſweetneſs, which too many ignorant People admire, and count good and nouriſhing; but in truth, ſuch Liquors fail not to fur, foul, and obſtruct the Stomach and Paſſages, ſending dark dulling Fumes and Vapours into the Head, and alſo generate an hard, gritty quality in People ſubject to the Stone and Gravel: Alſo ſuch Drinks are of evil conſequence to Women who are of tender Natures, and weaker Spirits and Heats than Men, therefore let them refrain the ſame, if they have any reſpect to their own and their Childrens Healths.

The uſual Courſe in Brewing, is to let your Drink work in the Tun till it begins to fall or firment more gently, and then to Tun it up into your Casks, which new motion and agitation puts the Drink upon a freſh firmentation, and cauſes it oftentimes to work again as fierce and eagerly as it did at firſt, or more, which is apt to make it fret or ſpend it ſelf, for much or fierce workings

ings makes all Drinks to grow keen and ſtale, ſooner then when its firmentation is moderate. It will indeed in ſuch Caſe become fine ſomewhat ſooner, becauſe the volatile Spirits and ſweet Body is waſted, or rather turned into ſharpneſs by the two long and fierce firmentation. Therefore, thoſe that have a mind to avoid this Inconveniency, ought to Tun or put up their Drink young, as the Brewers call it, that is, before it hath firmented too much, (*viz.*) ſo ſoon as your Drink works you ought to Tun it into the Barrels or Veſſels, and you need not doubt but it will work ſufficiently; nay, you may when your Wort is thorough cold, mix your Yeſt well with your Wort, and put it into your Veſſels preſently, and it will do extraordinary well.

Now if any think that ſo ſhort a time of Infuſion as I have preſcribed will not get out the Virtue and Goodneſs of the Hops, without boiling of them ſtoutly, I anſwer, That all the mild, friendly virtues of Hops lies as it were outward and ready, which with the leaſt violence are drawn forth, as appears by that delicate Scent and Odor which

they caſt abroad; nay, ſo free and tender they are, that if they be not cloſe ram'd or ſtuffed into Bags, the very Air ſhall ſteal away moſt of their Excellency, and if ſo, what will the fierce heat and violent boiling do, which every conſiderate wiſe Man ought to conſider.

Now as to the Nature of Hops, there is in them a moſt excellent glance or friendly opening quality, more eſpecially if they were dried in the Sun, which is to be preferred before the Hoſt or Kill; for the ſpirituous parts of this Plant is ſo nice, that it cannot indure any violent heat without prejudice to its fine Virtues, and you might almoſt as rationally make your Hay that way, which if you ſhould be ſo dull as not to perceive your Folly, I doubt not but your bruit Beaſts would upbraid you of indiſcretion, and teach you the difference. Hops naturally purges powerfully by Urine, if prepared and uſed with underſtanding, ſo that they are unjuſtly charged to breed the Stone; for on the contrary, they are a ſpecial Remedy againſt it, if ordered with judgment, and as they ought to be; but

as every thing consists of Contraries, they may, and do occasion the Stone, and other Diseases by accident; but it is only when they are abused, and after their good Virtues are drawn off, or evaporated by the force of Fire, as boiling, and the like, which is done in a trice; for no Herbs that have been dried as they ought, will endure the Fire, or Boiling without manifest prejudice to the best Virtues; but it is a gentle Infusion that will naturally, and without violence to Nature, extract or draw forth all that is desired in Hops, or any other dried or prepared Herbs; but 'tis true, it will not rouzen or infect your Liquor with their original harsh, bitter, fulsom, keen, hot Properties, which too many, for want of distinguishing the Principles of Nature, call Virtue and Strength; indeed Strength and Fierceness it is, but far from Virtue in respect of Humane Bodies, nothing scarce being more inimical and injurious thereunto, which evil Properties in every thing are the more drawn forth and increased by overmuch boiling, especially in Herbs and Vegitations which have been al-

ready firmented and digeſted by the Influences of the Sun and Elements, whereby the groſs phlegmy Parts are opened, and the Spirits ſet upon the wing ready to come forth upon any gentle Summons.

But the ſwinging Objection is yet behind; you undertake (cries the profeſſed Brewers, and the good Dames,) to teach us to brew, yet leave out the principal Verb; you ſay the Liquor, before it be put to the Mault, muſt only be moderately hot, not boyled: Well, ſuppoſe we ſhould yield to this, ſtill you forget to tell us, how long it ought to be boyled after 'tis drawn off the Mault: Sure you would not have us brew without boyling at all, and make raw Ale and Beer, and take 12 or 16 *s. per* Barrel only for a little Water bewitch'd, the Rincings of a parcel of Mault, and a few Hops in a little warm Water, with a ſmall doze of Yeſt to make it bubble in the Barrel, is like to make excellent humming Liquor. You complain of our Ale not keeping above a week; Is it poſſible (if unboyl'd,) it ſhould keep at all? Nay, Can Abſurdity call it Beer or Ale?

Ale? He is like to have Customers, who should write over his Sign, *Here's Beer and Ale to be Sold that never was boiled.* When the great Fault that all the World finds with the Common Brewers Drink, is, that they do not boil it half enough; and yet they boil it double the time as most House-Wives do. But if you could make good your Words, *That good Ale and Beer might be made without boiling away a great quantity of what they put up*, the Company of Brewers might well afford you Five hundred Pounds a year for the Invention; for they could save almost as much as their Excise comes to.

Answer. This I confess is the common Leiry, but it affects me no more than the buzzing of Flies about my Nose in Autumn. The Objection consists of several Parts, I will endeavour to answer them in order.

First, As to the boiling of Wort after drawn from the Mault, I do aver, that it is not only unnecessary, but mischievous, for the Reasons before-mentioned, and also by what follows. 'Tis not boiling, but a due firmentation that makes excellent generous Liquor.

Wine and Cyder are not boiled (at leaſt not commonly) yet few People ſcruples, or think them ever the worſe: What's the Reaſon? Becauſe they will ſay, the Grapes and Apples have paſſed through as much digeſtion as they ought, or need to have, by the ripening Influences of the Sun and Elements. Well then, and what's the matter but ripe Barly, which has not only received a far higher digeſtion by the ſame Sun and Elements, and will thereby remain good and ſound ſeveral years, which the beſt Grapes and Apples will not continue good a tenth part of the time; and though it be harder and more tenacious in its kind, has yet undergone a ſecond by its being made into Mault, and a third afterwards by our way of Infuſion in Water, fitted to a due warmth to extract its ſpirituous Virtues and ſweet Body, ſhould need a fourth of boiling ſo long as you talk of. Is Water (ſeeing it is originally deſigned by God, and his Hand-Maid Nature, the common Drink for all Creatures) of ſuch an ill Nature or Quality, that it requires ſo much boiling? No certainly; for boil a Gallon

of

of Water to three Quarts, and let the remainder ſtand eight or ten days, and you'l find all its brisk pleaſantneſs (before to any accuſtomed or undepraved pallat as reliſhing as any Liquor whatſoever) wholly loſt, ſo that you, or any Beaſt, will nautiate to drink it. The Reaſons why we heat Water in Brewing to ſuch a competent degree, is not ſo much to correct its Rawneſs, as they falſly call it, as to qualifie it to open and draw forth and imbibe the good Virtues of the Mault, and ſo likewiſe of the Hops, which being once effected, all our pains in boiling is ſuperfluous, and not only ſo, but detrimental too; for henceforwards, if you proceed in your boiling, you do but raiſe and induce thoſe fierce bitter Spirits in each thing or ingredient, which though fitly planted in them by Nature, for their own particular Conſervation, were yet never intended for the uſe of Man, as being injurious to his own Nature when unduly ſeperated from the friendly qualities or light of Nature. If then neither the Water, nor the Mault, nor the Hops require this tedious boiling, why is it practiſed? Or, rather is it

not

not a demonſtration, that the ſame is detrimental; ſince in all Nature's ways unneceſſaries are hurtful, and over-doing there (as well as in Morals) is a badge of Vice. You talk of Rawneſs, 'tis but raw that is indigeſted (Argument) but the Drink I recommend is not ſuch, ſince it has paſſed through all the digeſtions and firmentations that it ought to do; and if People will not be willing to give 12 or 16 *s. per* Barrel for wholſom Drink, as for unwholſom, I can neither help nor hinder it, any more than perſwade an ignorant Iriſhman to quit his ſtinking Butter (of as many Colours as the Rain-bow) for wholſom, ſweet Engliſh Butter, which he counts hath no taſte in it; all this is but the effects of Cuſtom. But add further, That this unboiled Drink will not keep; I anſwer (better for all good Intents) than your parboiled Gear. The beſt way to prove a thing feaſible is to do it: Now I have more than once made excellent Beer that never boiled, and yet has kept good, in your ſenſe, a Twelve Month, and he that keeps any longer, has kept it ſix Months too long.

As

As for what is intended for long Sea Voyages, 'tis a particular buſineſs, and ſo the boiling of it with Hops a great while, may, together with exceſſive Salt Meats, notably help the Seamen to the Scurvey, and yet both the one and the other might eaſily be avoided. But ſtill you urge, the only Fault all the World finds with Brewers of common Ale and Beer, that 'tis not boiled half enough, yet, and with as much Judgment, as once an honeſt Tubman, whoſe Imployment was to carry Beer and Ale from Brew-houſes to his Maſters, whom I imployed to carry my Ale, who would needs be taſting: *Ay marry Maſter*, quoth he, *this is good Ale indeed, a Man may taſte this is well boiled; if Brewers would but boil theirs ſo, we ſhould not have ſuch filthy unwholſom Drink in every Alehouſe*, whilſt all the while the Ale he drank never boiled one wallop. But if I could make my words good, the Brewers might give me Five hundred Pounds *per Annum*, and get Money by the Bargain. I have made good my words, but I dare not undertake to rectifie at once all the debauched Palats, and depraved Judgments

throughout the Kingdom. If abundance of *People* will love fullom Ale, with Yeſt thwackt into it, to make it as they think ſtrong and mighty, or the rueful Juices of parboyl'd Hops, and will Court the Stone, the Scurvy, the Conſumption, and the like, to make work for the Sexton and the Flanel Weavers, I can no more help it than the Self-Murther of above 40000 a year, by the uſe of that Alamode Liquor, *Brandy*. And as for a Penſion from the Brewers, I am as far from ſeeking it, or (bleſs God) from needing it, as (I fear) they will be from following my well intended advice; for it is no new thing for Men, over whom Cuſtom and Tradition hath got the Aſcendant, to act not only againſt Reaſon, but even contrary to their own true Intereſt too. Much more I could ſay, but I think this enough for ſuch a Vulgar Objection.

Here give me leave to tell you, that there are a great number of brave Herbs and Vegitations that will do the buſineſs in Brewing, as well as Hops, & for many Conſtitutions much better; for 'tis Cuſtom more than their real Vertues

Vertues that renders Hops of general Use and Esteem; they are an excellent Herb, and would be much better, if they were or could be dried in the Sun. Some other Herbs I shall here mention, fit to be made use of in Drinks.

Penny Royal and *Balm* are noble Herbs, and of excellent use in Beer or Ale; they naturally raise and cheer the drooping Spirits, and open and cleanse the Passages after a friendly way, and with a mild Operation. And also they add great strength and fragrancy, and makes brave, well tasted Drink, good to prevent and cure all, or most of those Diseases which the wise Ancients have appropriated that Herb unto. The like is to be understood of *Mint*, *Tansie*, *Wormwood*, *Broom*, *Carduus*, *Centuary*, *Eye-bright*, *Betony*, *Sage*, *Dandelion*, and good *Hay*; also many others, according to their Natures and Qualities, and for those Diseases to which they are respectively appropriated. But note, that all and every of these Herbs ought to be gathered in their proper Seasons, and dry and preserved as we have given Directi-

ons in our *Way to Health*; for you ought not to use any Herb or Vegitation in Beer or Ale whilst they are green, except there be a necessity.

Secondly, When you infuse in your Beer or Ale *Wormwood*, *Broom*, *Tansey*, *Carduus*, or any other Herb that exceeds in bitterness, you ought not to let them lie in your Wort above half an hour, or if you put in a good quantity, a quarter of an hour will be enough; for in all such bitter Herbs the Martial and Saturnine harsh Properties are near at hand, and the warm Wort will quickly stir up and awaken their harsh, bitter, strong, astringent qualities, which will presently devour, suffocate, and destroy the fine spirituous Virtues and opening cleansing Properties; and then such Drinks becomes of an hard, harsh, constringent Nature, and are apt to obstruct the Stomach, and send Fumes into the Head, heating the body and blood too violently; therefore all, or most Infusisions of Herbs, made after this common way, more especially of bitter Herbs, are naughty and injurious to Health. As for Example, They put a quantity

of

of *Wormwood*, or ſome other bitter Herb, into their Beer or Ale, at or after it hath done working, and there let it lie infuſing (or rather rotting,) two, three, four, five or ſix Weeks, and in Ale-houſes ſo many Months, until the Cask be out, whereby all the good, opening, penetrating, brisk, Spirits, and fine Virtues of ſuch Herbs, are totally deſtroyed; and in ſtead thereof the Drink impregnated with their contraries, (*viz.*) with the harſh, bitter, churliſh, inimical Properties, eſpcially when ſuch Infuſions are made of *Wormwood*; for this reaſon common *Wormwood* Beer and Ale does not only hurt, but by degrees weaken the natural heat of the Stomach, but ſends dulling Fumes and Vapours into the Head, and does prejudice the Eyes. 'Tis certain, Infuſion of Herbs, if due order be obſerved, is the beſt and moſt profitable way yet found out to obtain their Virtues, both for common Uſe and Phyſick, far beyond Waters and Spirits drawn from them by Diſtillation, for thereby a burning, fierce, brimſtony Spirit is extracted, void of all the mild, cleanſing, opening Quali-

ties or mild Virtues, which in firmentation are turned into a Degree of Anafidity, which fits it, and renders it capable of Separation. As for Example, Take Sugar (which is the moſt balſamick and higheſt ſweet of any thing in the World) firmentation will in a little time turn the whole ſweet Body into a ſour, or a degree of ſharpneſs, then diſtil it, and you ſhall have a hot, burning Spirit, and for every pound of Sugar you will have near a pound of Spirit. Here you ſee the whole, ſweet, pleaſant Body is turned into a fierce, ſtrong, burning Spirit, which has its uſes in Phyſick, but otherwiſe pernicious if commonly drunk, as too many do. The very ſame is to be underſtood in the firmenting and diſtilling of any ſorts of Herbs; as in the Spirit of Scurvy-Graſs, ſo much of late cried up for its wonderful Virtues againſt the Scurvy, when in truth there is nothing in it; for if you take Scurvy-Graſs, and infuſe it in Brandy, or any other *Minſtrum*, for a certain time, till it firments to ſuch a degree, and then draw it off, or diſtil it, and inſtead then of obtaining the friendly, mild,

mild, cleanſing Virtues, and middle qualities, you have a ſtrong, fiery, brimſtony Spirit, which is not ſo good as rectified Spirit of Wine, and it hath no manner of force to cure or prevent the Scurvy in the Blood, for in good earneſt, the frequent uſe of ſych Spirits doi heat the Blood, obſtruct the Stomach, and increaſe Scorbutick Diſeaſes. The greateſt Virtues it hath, it being put into Ale, Beer, or Wine, in a Morning faſting, it quickens the Stomach, as Spirits do and ſeems to purge by Urine, as moſt mixed Drinks do, eſpecially when Spirits are mixed with other Liquors, but it is the Order and Time, and the Liquor it is put into, that is the principal point why it purges by Urine, being generally drunk in a Morning faſting, when the Stomach is free from Food, and the Paſſages leaſt obſtructed, then a Glaſs or two of any ſort of Liquor or Drink will quickly run thorough a Man, and purge much more by Urine, than at any other time of the day. And I do affirm, That if any one take Brandy, or other good Spirits, and in a Morning faſting, drop

sixty or seventy Drops into a Glass of Ale, and fast two or three hours after it, and it shall purge by Urine, and also quicken the Stomach, and have as good Effects on the Scurvy as the best distilled Scurvy-Grass, let it either be drawn off with Brandy, or of its self. And also the Mornings Draught the good Dame teaches her Husband to drink, *(viz.)* Ale and Brandy mixed together, which will prove as beneficial. The like is to be understood of other things called Medicines, if once the Multitude cries them up, tho' they be never so heterogene and improper, they must do Wonders.

What

What Water is beſt to make Mault.

RUnning or River Water is to be preferr'd before either Spring, Well, or Pond Water, which do contain a certain Unctious Virtue, or Saline Fatneſs, that it attracts or draces from the ſurface of the Earth, from which good Quality and ſweet Virtues all vegitations do grow and proceed; beſides River Water have not only the benefit of Motion, but alſo the benevolent Influences of the Cœleſtial Bodies running in the open Air and Light of Heaven, which do by its fine Vapors penetrate and purge it from its harſh Earthy Qualities, and as it were open its cold Body, warming and induing it with a Spirituous Airy, and Balſamick Virtue, of a ſoft Nature and Friendly Operation, this being the cauſe why River Water will perform all preparations in Houſe-wifery better, and to more advantage than either Spring, Well, or Pond Water, therefore it is the principal Water to make your

Mauſt

Mault with, for these good Virtues and Salniteral quality do never wholly depart from the Mault that it hath indued it withal; besides, this Water does more naturally open and penetrate the Body of the Corn with a cartine, mild, and sweet Violence; the next in Goodneses to this is Spring Water, but remember to avoid all Cold Constringent Waters, and such as will not wash, for such are of a Saturnine, Earthy, harsh Nature and Operation, and they do equally indue all things that it doth prepare with its ill Qualties, as the former do with their good, if you water your Garden with Well Water, which is hard, hungry, lean, and harsh, and with Running, or River Water, there will be a manifest difference, the first hardens the Earth, and causes the Vegitations to dwindle, and if they be tender Plants, it often kills them, but the latter will not constringe or bind the Earth, but rather make it plump and hollow, and the Plants or Herbs will grow amain, but Rain Water hath the first place of all others, if it could be procured undefiled and simple.

Of Mault, and how it is made.

TO make Mault with Judgement is is none of the ſmalleſt parts of Chymiſtry, ſome ſay that it was firſt invented in *Egypt* by the Egyptian Phyloſophers; but the greateſt of Myſteries, when commonly known, are not admired. Firſt put your Barley into a Ciſtern, then fill it with Water that it ſwims 2 or 3 Inches above your Corn, the time of this Infuſion is according as the Seaſon is either hot or cold, alſo according to the Goodneſs and Nature of the Corn, ſome will infuſe and work more kindly than others; your ſmooth, plump, weighty Corn does beſt, and will embibe or receive the Water more aptly, but your hungry, lean, flinty, thin Barley, will not infuſe ſo kindly, the which muſt be left to the Judgment of the Workman; if the Weather be warm two days and three nights may do, in moderate weather three days and three nights, but in Winter, eſpecially in Cold, Froſty

Frosty Sasons five or six days will do it no harm, the general way or mark to know when it is Infused or Steeped enough, is to take a Corn endways between your Fingers, and gently Bruise or Crush it, and if you find it equally mellow, and that the Husk opens, or as it were a little starts from the body of the Corn, then it is enough; but if your Barley be grown, or any wet have Injur'd it, then be careful that you do not Infuse it too much, which is oftentimes done, which do flatten, dull, and wound the Spirituous qualities or sweet Vertues, and such Mault will yield but little Spirit or sweetness, and the Drink made thereof will have an ill flat taste, not brisk nor lively, neither will it keep, but quickly grow dead and sour; for the well and long keeping of Beer or Ale depends as much on the goodness of the Mault as Brewing; also you must remember to let your Water drein very well and equally from your Corn, before you take it out of the Cistern 12 or 14 hours in moderate Weather, but 24 or 30 in Cold, especially in very Cold, the better the Water is drein'd from

from your Corn, the more equal it will grow or come, then couch or heap it if your quantity be large, and weather warm, into two, but if cold into one, turn it every 4, 5, 6, 7, or 8 hours, as the Seaſon is either hot or cold, *viz.* the outwardmoſt part inwards, and the bottom upwards, and keep your Floor clear, that the Corn that lies next thereunto may not be chilled, and ſo ſoon as it begins to come, or as ſome calls it Work, then turn it oftner every 3, 4, or 5 hours as you did before, and as even as poſſible, both day and night if you ſee occaſion, more eſpecially if the weather be Cloudy, Warm, and Windy, for the Air is the Root of Life, and when it is agitated, it awakens and blows up the inward Life, and kindles its Spirits, that it becomes more brisk and fuller of Motion, and as it Comes or Works more and more, ſo you muſt by degrees ſpread and thin your Couch, or heap wider and wider, to cool, and as it were fix it, that it may not come too much nor too faſt, and when it is come, or growed enough, which all that are fit for this Imployment may eaſily judge, then ſpread it

very thin, and keep turning of it 12, 14 or 16 times in 24 hours, especially if the Season be warm, or late in the Spring, as in *March*, *April*, or *May*, great care ought to be taken in the Spring Season, for all things then have a more lively Motion than at other Seasons, and when you have fixed it, or that the Root begins to be Dead, then you must thicken it again upon the Floor, but be careful and keep it often turning and working; that the growing of the Root may not revive, your Shooes ought not be on your Feet; also let your Judgment and Diligence be such, in working and turning your Mault, and keeping your Floor clear, that it may neither Mould nor Ackerspier, that is, the blade to grow out at the opposite end to the Root, which will mightily lessen the good Qualities, and Sweetness of the Mault, and also give the Drink an ill Taste. Now being come to this Degree, and fit for the Kill, some will turn it up into a great heap, 24 or 30 hours, in which time it will heat, which is very prejudicial, and does in a degree suffocate and flatten the sweet Virtues, this, and high

high drying gives your Beer and Ale a high martial Colour, both which are great violences to Nature, and the Drink made thereof proves injurious to the Drinkers; it ſends Fumes and cloudy Vapours into the Crown, hurts the Eyes, heats the Blood, and a great Friend to the Stone and Gravel, with ſeveral other ill Operations. Note, The time of its preparation from the Cyſturn to the Kill is uncertain, all according to the Seaſon of the Year, whether hot or cold, and the goodneſs of the Corn, in moderate Seaſons it will come to the Kill in three Weeks or thereabouts, but in cold it may be four or five, and as to the thickneſs and thinneſs on your Kill Mens Judgments vary, and in ſeveral Countries they have ſeveral Faſhions and Cuſtoms, ſome will put it from ſeven to ten, or 12 inches thick, which is an ill Cuſtom, and it never fails to injure the Mault, for you muſt keep a ſtrong violent Fire, which is apt to burn that which lies next the Cloth, whilſt that which is uppermoſt is neither hot nor cold, which do mightily flatten the ſpirituous ſweet Virtues thereof; beſides, all the dili-

gence you can uſe cannot dry it ſo equally, and the thickneſs thereof occaſions it to ſend forth a terrible damp or moiſt groſs Excrementious Vapour or Steem, which do oftentimes re-enter the Mault, wounding and ſuffocating the finer Virtues and ſweet Qualities, which gives an ill taſte to the Mault and Drink made thereof; beſides it will make but little Drink, and that not good nor wholſom, and if ſtrong Drink be made of ſuch Mault, its evil Juices are the more perceptable by heating the Body, and ſtupifying the Sences by its groſs heavy Fumes, being a great Enemy to Nature: Theſe ill Cuſtoms all Mault-Makers ought to underſtand and avoid, for every ill Cuſtom and Diſorder in making of Mault is taſted and felt in the Drink, and it it is moſt certain, that through *England* there is not one Buſhel of Mault in four made as it ought, *viz.* to that degree of goodneſs, which is the occaſion that Ale and Beer have ſo many ill Taſtes and Operations, and that it makes ſo little Drink and weak. Now as to its thickneſs on the Kill, it ought not to lie more than three, four or five Inches, and let your

your Fire be conſtant, not too fierce, and yet indifferent brisk, which will keep the Spirit and Life of your Mault living, for it may be as well too ſlack or ſlow, as too fierce or ſtrong; for when your Fire is too weak, it flattens and dulls the ſpirituous ſweet exhillerating Qualities, and when it is too ſtrong or fierce, it fires and ſtagnates them; keep turning of it every two, three, or four Hours, and keep your Cloth clear: Alſo it is to be Noted, That your Kill ought to have convenient Windows, that the groſs Steams, fulſom Damps, and ſtupifying Vapours may paſs freely away, and to let in the friendly Air, which will keep all the real good Virtues of the Mault living. Now as to the Complexion or Colour of Mault, White is the beſt, becauſe moſt Natural, and therefore in all Preparations and Operations, you ought, as near as poſſible you can, to maintain the Natural Complexion of the thing, for the tinctures ariſeth, and proceeds from the fine Spirits and eſſential Virtues; therefore, if in your Order of making Mault, you alter and change the Colour, you then alſo change its Virtues, and make the

Drink of another Nature and Operation; for all redneſs, or high colour in Drink proceeds from ſome violence done to the Spirits and fine Virtues in the preparation, for the colour is a ſtranger to the Nature of that Grain, and it ſhows that the fierce Spirits and hot Vapours of the Fire have as it were tranſmuted or changed the mild, friendly, ſoft Virtues and Qualities of the Mault, into its own fiery Nature; and it is not to be doubted, but that digeſtion is moſt Natural that preſerves the tincture intire; force not Nature out of her way, nor change the Form, for then the inward Life and good Qualities of that thing are in danger; for the fierce raging Spirits of the Fire and Eſſences thereof do never depart from ſuch parched high dried Mault, but do always remain, from whence the Drink made thereof receives its high bloody Colour, which moſt ignorant People cry up and admire as a Virtue, or good Quality, but the contrary is to be underſtood, and nothing in Mault is a greater Vice or Evil, and the Drink made thereof, together with its long Boyling with Hops, do ſeldom fail to wound

wound the Health of the Drinkers thereof; its natural Operation in the Body, is to heat the Blood, deſtroying Appetite, obſtructs the Stomach, ſending groſs dulling Fumes into the Head, dulls the fine pure Spirits, hinders the free Circulation of the Blood by Stagnating the Humours, and in the Cholerick and Melancholy Compexions generates the Stone, Gravel, Gout and Conſumption; this ſort of Drink is alſo very injurious to Women, eſpecially ſuch as are with Child, or give Suck: In all your preparations of Meats and Drinks uſe diligence, and do no violence to the internal Virtues or Spirits, which are occult, and not perceptable to the ſight of the Eye; therefore if you have not Wiſdom and Underſtanding to diſtinguiſh the inward Virtues and Qualifications, and what Properties governs in each thing, you may as it were inſenſibly commit great Errors in the ſmalleſt and meaneſt Preparations, as indeed moſt do for want of an inward Underſtanding of the forms of Nature; and remember this, that the nearer you come to Nature, and the more you imitate her, the

nearer you are to Truth. Now as to Barley, God and his Handmaid Nature have ſigned and indued it with that moſt amiable Colour, White, which of all Colours and Complexions have the firſt place; therefore in your Preparation and Diſgeſtion of Mault uſe no violence that may cauſe it to degenerate, but on the contrary, uſe all Art and Means to maintain it, for the whiter your Drink is, the better and more Healthful, having a mild or gentle Operation; it is not ſo apt to ſend dulling, groſs, thick Fumes and Vapors into the Head, nor to heat the Blood, or obſtruct the Paſſages; and I muſt here tell you one Truth, *viz.* That white Ale of a middle ſtrength drank new have the firſt place of all firmented Drinks, and is the beſt againſt the Generation of the Stone, Gravel, and Gout, excepting good, mild, ſoft Water, which is the radix of all moiſt Nouriſhment.

There is another Error in the drying and killning of Mault, there being but few that do keep their Kills ſo free from Smoak as they ought, for Smoak being extreamly prejudicial to the Mault,

Mault, and alſo to ſuch as ſhall Drink the Beer or Ale made thereof; for if this ſtupifying, keen, Fume or Vapour be not prevented from paſſing through and incorporating with the Mault, which is by its preparation made eaſily penetrable, and is therefore preſently hurt or wounded, by this ſharp, keen, fulſom, groſs, Vapour, which is full of dark ſulpherous Excrements, which the Fire and Light caſts forth as an Abomination, being void of all real Virtues, containing a groſs Humidity, and fierce keen quality, very pernicious to the Health; for Smoak proceeds from the poyſonous Juices, and original Liquor which the Fire and Air ſends forth, for the Fire devides and ſeperates the Forms and Properties of Nature, and manifeſts what qualities both Vices and Virtues, that lie in the Root, which ſo long as the thing remained intire, nothing of this poyſonous quality was ſeen or known, Smoak being an Excrement, or thing that all People endeavour to avoid, as being the moſt prejudicial to the fine volatile Spirits, and therefore moſt offenſive to the Eyes, for they are the Gates to the

whole Body, where the Natural Spirits have their ingreſs, egreſs, and regreſs; and for this Cauſe Smoak does firſt offend the Eyes, or any other ſtupifying Fume or Vapour, either externally or internally, and therefore when any one ſhall eat ill-prepared Foods, or drink the like Drinks, when the Natural heat of the Stomach and Concoctive Faculty does ſeperate ſuch Foods or Drinks, they do as Naturally ſend up into the Head groſs excrementitious Vapours, very offenſive to Nature, eſpecially the Eyes, (as Coal or Wood does Smoak) the like is to be underſtood when any ſhall overcharge their Stomachs with too great a quantity of Meats and Drinks, alſo how inimical it is to Nature is further manifeſted by its black ſooty Subſtance which it leaves behind it, and by its deſtroying Vegitation, for it contains two poiſonous qualities, *viz.* a ſtrong Bitter, from *Mars*, and a fulſom Aſtringent from *Saturn*, its black colour denotes that its predominant quality is from the venamous Centre of *Saturn*; therefore in the drying of Mault there ought to be great

great Care taken that it be not ſmoaked, for Smoak does alſo help to advance that dull, heavy, reddiſh colour in Drink, which to avoid Stoves are good and profitable for that purpoſe, being placed in the midſt of your Kill that the heat may equally diſtribute it ſelf to all parts, all the Smoak being conveyed away by a Funnel aptly placed; when your Mault is dry, let it not cool on the Kill, but preſently through it off, not in a heap, but ſpread it wide in an airy place until it be thorough cool, then heap it, or otherwiſe diſpoſe of it.

But the beſt and moſt natural way of drying Mault is in the Sun in *April* and *May*, eſpecially for thoſe that makes but ſmall quantities for their own uſe, this makes, not only the paleſt, but the moſt kindly and wholſomeſt of all others, the Drink made thereof has a delicate fine mildneſs, being of a warming exhilerating quality, not ſo apt to heat the Body, nor ſend fumes into the Head, in all hot Seaſons it may be done, every Man may dry enough for his own uſe; alſo it may be done to great advantage in hot Climates,

Climates, as in *Barbadoes*; their Indian Corn will make very good Mault, and consequently good Ale, but it must have a few Hops in it.

Of late, some have covered over their Kills with Wyer instead of Haircloth, which is much the better way, which doth not only dry it sooner, but cleaner and much sweeter; for by means of this Grate, as one may call it, the Properties of the Fire passeth away more freely, and the sweetening Vapours of the Air are not so much hindred from circulating, and therefore not so much humidity contracted; but their Cloaths are thick, which prevents the fiery Sulpherous Vapours from passing away; so that these rageing Vapours and fiery Spirits, are as it were beat back, and then they with great violence seek their Centre whence they proceed, that is, re-enter the Fire, but finding no agreeable Matter or Body to incorporate, they become the more intense and raging, do with a rapid motion ascend, by which means, the heat that comes thorough the Cloth is still the more stupifying, sulpherous, gross and hurtful to the Mault,

Mault, as is moſt manifeſt by the Airs in all clo[illegible]ces, as where Stoves are, the Air having no free Circulation; beſides, they are more cleanly and apt for all good purpoſes, and your Mault will be whiter, and afford more lively brisk Spirits.

It is further to be noted, that moſt People are of opinion, that Mault does Brew to the greateſt advantage, and make Stronger and more Drink if they grind it 5, 6, 7, or 8 days or more before they Brew; for, ſay they, that the Mault lying ſome time together after ground, do occaſion its dryneſs and hardneſs to give, and as it were, become mellow or yielding, by which means it is the eaſier diſſolved, and the hot Liquor does the more aptly penetrate all parts thereof; which is all true, and yet you have no real advantage thereby, but the contrary is to be underſtood; for as I have told you before, the groſs Body is but the houſe or a covering place for the fine ſpirituous Vertues, which inward powers are not perceptable unto your ſight, and if you by any undue order or method of diſgeſtion offer violence to

them; then immediately these ſpirituous qualities will according to the Degrees of that Injury done evaporate in an inviſible breath or air, and then the Body be it what it will, becomes ſick, and by degrees will die and periſh. As for Example, Take a Quart of lively brisk Beer or Ale, warm it well, then ſet it by for 3 or 4 hours, and you will find that it will have loſt all its ſparkling lively good qualities and ſpirits, and yet you have your Meaſure, it hath not loſt any of its quantity, but only in quality. The like is to be underſtood in all other things, according to the Nature of each, more eſpecially thoſe things that have paſſed through any Diſgeſtion and Fermentation as Mault hath, whoſe Body is thoroughly opened, which have unlocked all the Doors of the harſh Aſtringent Chambers of *Saturn* and *Mars*, and thereby have as it were ſet at liberty the ſweet exhilerating ſpirituous Vertues of *Sol* and *Venus*, that on every affront or violence done them they are on the wing; therefore Mault, if ground 5, 6, 7, or 8 days before it be uſed, the ſpiritous parts

and

and beſt Vertues will evaporate, no Art can prevent it, and ſuch Mault will not make ſo much Drink, nor ſo good as that which is new ground, for when the Body is broken, the Spirits is ſo nimble or volatile, that there is no Veſſel ſo cloſe that will retain them, and if the Veſſel could, the Spirits are ſo fine and tender, that they will be ſtrangled or ſuffocated, nothing can hold or contain them, but its own Body or a proper Menſtrum, for this cauſe, Mault ought not to be ground above 6, 8, or 10 hours before you put it into your Maſh-Tub, which will afford a better, ſtronger, and a more ſpirituous Liquor or Wort, than that which lies ground 6, 7, 8 or 10 days before you Brew, nothing but practice will convince the unlearned; Ill Cuſtoms have greater power over Mankind, than either the Law of God or Nature, *but Wiſdom is juſtified of her Children.*

How, to make ſeveral good Drinks againſt the Stone and Gravel, and other Diſeaſes.

THE beſt Drinks to prevent the Generation, and Cure the Stone and Gravel, are ſuch Drinks which God and his Handmaid Nature have prepared to our hands, and is ready every where to be had (*viz.*) good River Water; for the Stone and Gravel is hardly known in thoſe Countreys where the Natives common Drink is Water, for that of all others is the moſt friendly, mild, and cleanſing: But on the contrary, all firmented ſpirituous Drinks, let them be as wiſely handled as they can, nevertheleſs they heat the Blood, and a little time does naturally cauſe them to tend towards heat, ſharpneſs and keeneſs, which Qualities are great Enemies to the Human Nature, and breaks the Harmony of the Humours, eſpecially in ſuch that are apt in Conſtitution to generate Gravel or the Stone; alſo

ſuch

ſuch Drinks cauſes the Diſtempers called Heart-burnings, Fevers, and unnatural Heats throughout the whole Body; therefore ſuch as have a mind to preſerve their Healths, and be friends to their own Natures, let them follow theſe Directions, *viz.*

Of Cold Gruel.

TAke a ſpoonful of good Oatmeal, temper it with a little Water, then take a quart of the ſame cold Water, and brew the mixed Water and Oatmeal well together with the other quart, in two Pots that are for that purpoſe, and then it is done. Remember that your Oatmeal muſt be ground. The Oatmeal, if good, will mix or incorporate with the Water. Of this ſort you may drink a pint or a quart, or more, at a time: This is a moſt excellent Drink to be drunk Mornings, and at Meals, or at any time of the day, and ſeaſon of the Year, for all ſorts of People, both for the healthy and unhealthy, eſpecially in hot Seaſons, and for ſuch who are ſubject to the Stone, Gravel, or any

other Obſtructions of the Paſſages; and for young People, the frequent and common uſe thereof does wonderfully ſtrengthen the whole Body, it is ſo friendly and homogeneal, that it always quenches Thirſt the beſt of any others, by refreſhing the Spirits, bedewing the Body with a more pleaſant and more natural moiſture, than either Beer, Ale, Cyder, or any other fermented Drinks. It begets a natural cheerfulneſs, extinguiſheth all kinds of natural Fluſhings and Vapours that comes for want of a ſtrong, natural Health, and large Paſſages. It opens and frees the Stomach and Paſſages from groſs Matter that obſtruct the digeſtive Faculties, and powerfully purges by Urine, eſpecially if a quart or two be drank in a Morning faſting. It mightily aſſiſts Nature in all her Operations; and it is not only profitable againſt the Stone and Gravel, but alſo againſt griping pains of the Bowels, helps Concoction, disburthening the Stomach of ſuperfluous Juices, and cleanſeth the Veſſels which are generally ſtopt and furr'd by Intemperance; and it does naturally prevent Fumes

and

and Vapours, by carrying the offending windy Matter into the Bowels, causing it to pass with ease its proper way. Also the common use thereof is an excellent Remedy against shortness of Breath, or other ill habits of the Stomach, and against all sharp windy Humours and Juices that falls into the Joints. And nothing is a surer and more powerful Remedy against the Scurvy and Dropsie, by opening the Obstructions of the Liver and Spleen; begets Appetite to admiration, cheers and comforts the Spirits, and is in every respect friendly to Nature, and assists her in all her Operations. And whosoever shall accustom themselves to the frequent drinking of this cold Gruel, shall find by experience greater benefit than I have here set down. In all cold Seasons you may warm your Water as you commonly do Ale or Beer, to that degree of heat which do rather better it then the contrary. It is also to be noted, that firmentation, not only in Liquors, but also in Herbs and Vegitations, do destroy or transmute the opening, mild, friendly, cleansing and purging qualities, by

which they become of another nature and operation, for it changeth ſweetneſs into the higheſt degree of keenneſs and ſharpneſs, opening the Body, and ſets the Spirits at liberty, or on the wing, as is moſt manifeſt in Wort drawn from Mault, which is of an opening purging quality, but when firmented or worked, and of ten or fourteen days old, fit to drink, then it is become another thing, for firmentation hath changed or tranſmuted thoſe ſoft, mild, opening, friendly qualities into a brisk, lively ſpiritual Property, tending to heat, ſharpneſs, and keenneſs. The like is to be underſtood in the Infuſion of all opening Herbs in Wort, or the boiling them in Wort, & firmenting them afterward, therefore all ſorts of opening Liquors & Infuſions are moſt profitable againſt the Stone, Gravel, & Obſtruction of the Uriters before they be firmented of all: which our friendly cold Gruel hath the firſt place; but for ſuch that have been accuſtomed to Beer, Ale, Wine, and Cyder, and are not willing to venture on our friendly Gruel, ought to drink all their firmented Liquors, new Ale a week,

Beer

Beer twelve or fourteen days, and Cyder and Wine new; and if they will use any opening Seeds or Herbs, then let them infuse them in a pint of your Beer, Ale, Cyder, or Wine, one quarter of an hour before you drink, and warm it a little, so much as you do Ale or Beer when you drink it, which is a commendable way, far better than putting or infusing the Herbs or Seeds in the Barrel, or working of them in the Wort. And you must remember that in all your infusions that you use, infuse but one Herb or Seed at a time, make no mixtures, lest instead of advancing, you quite destroy the natural and simple Operations of that from which you expect help, for few men do understand the genuine Nature and Operation of two or three several Herbs or Seeds, when mixed or infused together, much less when four, five, six, seven, eight, nine, ten, or twenty are jumbled together, as I have elsewhere demonstrated.

Those that desire a more friendly Ale than is generally drunk, may infuse what quantity they please in their warm Wort, as you do Hops: Also use the

Herb *Ale hoof*, *Fennel Seeds*, *Caraways*, and *Coriander*, all which are notable Purgers by Urine; but they purge by Urine more powerful when infuſed in either new Ale or Beer, that is already firmented, as is mentioned before; ſo you may do it in ſmall quantities, as you have occaſion: But if you infuſe thoſe, or any other Herbs in Water, (*viz.*) in cold Water, for ten or twelve hours, and then drink a pint, or what you pleaſe, which have a far more powerful Operation againſt the forementioned Diſtempers, then in any firmented Liquor. It is further to be conſidered, That ſtrong, ſtale-Beer, Syder, Wine, or any other firmented Liquors, the frequent drinking thereof do not only generate the Stone and Gravel, but they do as often occaſion the Gout, Conſumptions, Dropſies, and many other Diſeaſes, all according to the Nature of each Mans Conſtitution, and what properly hath got the Aſcendant in the Humours of the Body, as is manifeſt in great Eaters and Drinkers; one Man drinks and eats himſelf into the Gout, another into a Conſumption, another into a Dropſie, or ſome other

Diſtemper; the evil Effects are as various as their Natures and Conſtitutions are contrary. Be therefore reconciled to Water, that generous Element which without doubt, was, and is the only Drink ordained for all Creatures by our Creator, therefore he that firſt firmented the Juices of the Grape, and made ſtrong Drink thereof, did drink and was drunk, and therefore was curſed with the greateſt of Curſes, which ought to be conſidered by all wiſe and good Men; but Water is ſo friendly, and does contain many ſecret and admirable Virtues, which the Creator hath indued this Element with, as in all Ages hath been manifeſt; for it being pure and clear in its own Nature; and is it not the only, and alone thing, by which all External things are purified, purged and cleanſed? And though it be a vulgar Proverb, *as weak as Water*, yet I muſt tell you, Water is more ſtrong and ſublime than moſt imagine, for it contains a moſt raviſhing and excellent ſweet Virtue, whence proceeds the pure, friendly, refreſhing quality, whereby it hath power, by its innate Virtue, to delight and purifie all ſorts

of

of Food. Alſo in Preparations it is ſo innocent and friendly, that it diſſipates the groſs phlegmy Body, and preſerves the more Eſſential Parts and Virtues, and keeps them living. What ſhall I ſay, words cannot declare its excellency; it is not only the moſt plentiful and truly pleaſant of all Drinks, but it ſupplies Nature with its friendly moiſture, and relieves Thirſt beyond all other Liquors or Juices, it is ſo ſimple, and indued with ſuch equality, that it inſinuates its mild opening Virtues into all parts of the Body in an inſenſible way; it makes no noiſe, nor cauſes any tumults in the Brain, nor awakens any inequality in the Body; but it imparts its meek Life as it were in ſilence; and as Bread hath the firſt place of all Food, and may juſtly be called Concord, as being the foundation of all good Nouriſhment, the like is to be underſtood of Water, that being the Radix of all moiſt Nouriſhment, and renders all things fit and profitable for Mankind, of which there are great variety, all according to the Natures and Salniteral Virtues of the Earth it proceeds from; but for general Uſe, Rain, River, and

Spring-water are the beſt, and that of theſe ſorts that will waſh, brew, and perform all Preparations in Houſwifery is the beſt, (*viz.*) that Water that will waſh Linnen to advantage is the beſt, which generally River Water will do, far better than moſt Springs, as I have demonſtrated in our *Way to Health.*

Advice to Husbandmen and Farmers, or Errors in Husbandry Corrected, for the Advancement of Corn, 4 d. *or* 6 d. per *Buſhel.*

BArly is of a Saturnine and Venereal Nature; it has its courſe, thick, harſh Coat from the firſt, and owes its ſweet, exhillerating, white Juices from the laſt; that is the beſt which is white, ſmooth, plump and heavy, and if it be Ground down, and none of the branny ſubſtance taken from it, and made into Bread, it affords a Nouriſhment of a middle Na-

ture, not ſo hot in Operation as the Bread of Wheat; it naturally cools and cleanſeth the Stomach, and is good againſt moſt Obſtructions that lies in the paſſages, occaſioned by ſuperfluity, and the too frequent Eating of fat, groſs, ſucculent Foods, and ſtrong Drinks; the Plow and this Bread is a good Remedy againſt over fatneſs, and loſs of Appetite, it is to be preferred in ſuch Caſes before the Bread of Wheat, and alſo for moſt Diſeaſes of the Breaſt.

Now here I muſt beg the Countrymans leave to tell him one grand Error or Miſtake moſt of them commits in the management of their Corn in Harveſt; but whether he will give me leave or not, I am reſolved to let him underſtand it, and by Demonſtrations in his own way, *viz.* They do for the moſt part let their Wheat, Barly, and Oats, ſtand until it be over Ripe, or rather rotten Ripe, that the Straw becomes brittle, that it will hardly ſupport the Ears, and thereby it ſheds more than was Sowed, eſpecially Barly, which is not half the prejudice or loſs, for over Ripeneſs in any of the forementioned Grains, endues it with many

ny ill Qualities, depriving it of its Natural Complexion, rendring it thin, ſmall and dwindling, light in weight & branny; the Bread made thereof will be of a ſad brown colour, and Eat dry and husky; and the Mault made thereof is poor, thin, lean, and husky, being as it were deprived of its Natural Sweetneſs, which evils can never be retrived, neither by Art nor Nature. I muſt confeſs it is a hard and difficult thing to hit the juſt and proper time, and ſeaſon for cutting; therefore the Medium between its ſtanding too long, and cutting too ſoon is to be regarded, but of theſe two Evils or Extremities, the leſſer, which is the latter, is to be choſen; for if any of the forementioned Grain be cut down, 6, 7, 8, or 10 days before it be hard, or thorough Ripe as they call it. Barly ought to lie in the Swarth 2, 3, or 4 days, and then made into large well trim'd Cocks, and to ſtand 8, 10, or 12 days before it be Ricked or Barned, as the weather will permit; the like is to be underſtood of Wheat and Oats, and what thoſe Grains wanted of its full Ripeneſs, they will attain in the Cock and Mow, by which

Method you ſhall preſerve all the ſpirituous fine Virtues, and ſtrength of theſe Grains, maintaining its Natural Colour, yielding more and better Flower, weigh heavier, and make whiter, ſweeter Bread, and the Mault made thereof will be more large, plump, and afford a greater Sweetneſs and Spirit; and all ſorts of Corn thus gathered in, is to be preferred for all good Uſes, Intentions and Purpoſes, before that which ſtands to over Ripeneſs, till it becomes hard and flinty, and of a duskiſh Colour; for when any Grain or other thing, as Herbage and the like, comes to its full Strength and Ripeneſs, then immediately the pure volatile Spirits, and ſweet Oily Body begins to evaporate, for there is no ſtanding ſtill in Nature; for ſo ſoon as the groſs, phlegmy matter is digeſted, or exhaled, by the Influences of the Cœleſtial Bodies and Elements, and brought to its higheſt Degree and Ripeneſs, which have opened all Gates in Nature, and have ſet the before locked up inward Powers, and Spirituous Qualities on the Wing, or as it were at *Liberty*, then immediately the ſame Cœleſtial In-

Influences will powerfully work, evaporate, and exhale all the good Virtues of that thing, for the groſs phlegmy Body is the Houſe and dwelling Place of the Spirit, and all Eſſences, and good Virtues are contained therein, and if this was not ſo, then the Spirit and Virtue of things would not be perceptible to our Sences, which is more aptly and compleatly contained and underſtood in Man; for in him is contained the true Nature of all Things; therefore the firſt ſtep to the underſtanding of all Things is the Knowledge of himſelf; for this Cauſe, when any Vegitation, Fruit, or Grain, have obtained its higheſt Perfection and Ripeneſs, you muſt then provide them another Houſe or Place, that you may thereby ſecure the inward Power and ſpirituous Virtues from the common and groſs Operations and Influences of the Elements; for as the Wiſe Man ſaith, *There is a Time and Seaſon for all Things under the Sun*, which if regarded and underſtood, is the higheſt point of Phyloſophy in Husbandry. It is farther to be Noted, That all ſorts of Corn and Herbage made into Ricks

or Stacks, is to be preferred before that put into Barns or Houſes, as is manifeſt by theſe Reaſons. Firſt, That in Ricks or Stacks will of its own accord ſettle much cloſer than that in Barns. Secondly, It hath a finer and more perfect Scent or Smell. Thirdly, It is more ponderous or weighty. Fourthly, All ſorts of Cattle will chooſe it, and Eat it better, and prove much fatter, the Natural Cauſe thereof is Ricks or Stacks, let them be either Hay or Corn, ſtanding in the open Air, the fine thin ſpirituous Vapours thereof do powerfully penetrate them on all ſides, even to the very center of ſuch Stacks, and do continually communicate and repleniſh it with its good Qualities, even by a Simpathetical Operation, for the true life of all Things conſiſts in the fine ſpirituous Vapours of the Air; and therefore, whereſoever the Circulation thereof are hindered, the beſt and real Virtues of ſuch Things are ſubject to be wounded, by a groſs Humidity, which all places do contract, where the Air and pleaſant comforting Rays of the Sun are obſtructed, or hindered from having their free in-

greſs

greſs, egreſs and regreſs, for this cauſe, Corn or Hay in Barns, are not, nor cannot be ſo good, as that in Stacks or Ricks, for the Walls and Tiles of Barns and Houſes obſtructs and prevents the free penetration of the forementioned fine Vapours, and ſweet refreſhing Influences of the Sun and Elements, that it cannot have its free Circulation, and therefore the Air ſo pent in, becomes groſs, dull and humid, which do ſuffocate the Spirits thereof; and this do ſecretly, but powerfully work and penetrate all parts of ſuch Corn or Hay, which do alſo dull, and flatten the beſt Virtues thereof; for this cauſe, Hay nor Corn will not ſettle ſo cloſe, ſmell ſo well, nor weigh ſo heavy; neither is it ſo good for no Intents or Purpoſes, for the weight of Corn or Hay is one of the trueſt Marks to know its Goodneſs, and that is heavieſt which have moſt Spirit and Life in it, but whenſoever any accident, or undue order happens, by which the fine inward Virtues and Spirits are wounded or evaporated, whether it be Corn or Hay, then it becomes light and chaffie, and of little Virtue or Uſe: Why ſhould Hay, or Corn in

Barns, weigh lighter, ſmell groſſer, and not ſettle ſo firm and hard, if the Spirits and Virtues thereof were ſuffocated and dulled, ſeeing all the true marks of Goodneſs are oppoſite. Do but make your Houſe as clean and ſweet as poſſible you can, and then ſhut your Windows and Doors, and let them continue ſhut three or four Weeks, will not the Air in that time become groſs, humid and ſtinking; your Goods moiſt and mouldly; for theſe Reaſons, Corn nor Hay is not ſo good in Barns or Houſes, as that in Stacks, neither will it make ſo good Bread, nor Mault, nor will Cattle prove ſo well with it, therefore Farmers may with great advantage ſave themſelves that trouble of Building ſuch conſiderable and chargeable Barns, only ſmall ones, or Houſes, that may ſtand conveniently to thraſh their Corn in, near the Stacks or Ricks; beſides, there are a ſort of Hovels, by the Name of Dutch Hovels, that are very commodious, and anſwers all the ends of Barns, which are built with a ſmall charge; and theſe will keep your Corn, or Hay, dry, and yet not prevent the free Circulation of the Air.

If

If the fore-mentioned Rules be obſerved, your Straw will not only be much better for Cattle, and all other Uſes, but your Corn will be larger, by which means it will advance a Buſhel, or a Buſhel and a half in twenty; that is, the ſame quantity that Meaſures eighteen or nineteen Buſhels, will then Meaſure twenty Buſhels; or the ſame Acre of Wheat that bears you thirty Buſhels, will then bear you thirty two Buſhels, and each Buſhel ſhall weigh from 3 *l.* to 6 *l. per* Buſhel more; the like is to be underſtood in Barly and Oats. Note, after any Grain is thraſhed, it being heaped up together, it keeps to the moſt advantage in the Chaff, if your quantity be not too great, nor the time too long you intend to keep it.

Cautions against certain Foods that Generate the Stone and Gravel.

First, SUch as are naturally subject to these Diseases ought to refrain from all over-salt Fish and Flesh, for such things are not only hard of Concoction, furring the Passages, but they do heat the whole Body, and infect the Blood with a salt, sharp, scorbutick Humour, occasioning Crudities and evil Juices, obstructing the Passages of the whole Body, and especially the Ureters.

Secondly, Let them refrain all Spicy Foods, for they naturally heat the Blood, hurt the natural heat, and produce the same Effects, especially in youth.

Thirdly, Let them refrain all or most sorts of Food made sweet with Sugar, for the frequent use of such Meats and Drinks do prove very prejudicial to most Peoples health, but more especially to such as are subject to the forementioned Diseases; for over-

over-ſweetneſs in Foods and Drinks, does not only thicken the Blood, and hinder its free Circulation, but it indues it with a watry phlegmatick quality, and turns the Humours to the higheſt degree of ſourneſs, more eſpecially if fats and ſweetneſs be compounded together, as they are for the moſt part (as the ſweeteſt Wines make the ſharpeſt Vinegar) which immediately tends towards Putrifaction, whence proceeds various Diſeaſes, according to each mans Conſtitution and Complexion, *viz.* Scabs, Boyls, Leproſies, Conſumptions, Gout, and Stone, all Stoppages of the Breaſt, ill Digeſtion, Nautiouſneſs, rotten Teeth, offenſive Breath, all which Diſtempers have of late years been more brief and frequent, ſince the common eating of ſugered Foods and Drinks. And indeed moſt Mothers and Nurſes, through an ignorant fondneſs, do lay the Foundations for theſe, and the like Diſeaſes in Children, from their very Infancy, by the continued uſe of ſweetned Milks, and other compounded Foods; for Sugar, tho' it be the King of all Vegitations, and the

ſub-

ſublimeſt Salt the Vegitative Kingdom affords, as being more highly graduated in the almoſt paradiſical quality the Sweet; neverthleſs, that too frequent, or overmuch eating of it proves baneful to Health, eſpecially to young People and Children; for when it comes into the Stomach, and is there fermented, it preſently tends to keenneſs, ſharpneſs, and ſourneſs, which in many People proves of evil Conſequence, and does generate a hard gretty Stone, making Subſtance as it finds Matter capable, and diſpoſed to receive and joyn Forces with it.

Fourthly, Alſo let thoſe that are ſubject to the fore-mentioned Diſeaſes, forbear, as much as in them lies, the frequent eating of fat ſucculent Foods; for you muſt note, that all fat Bodies are nothing ſo eaſily diſſolvable, neither can the Natural *Miniſtrum*, or Heat of the Stomach, ſo well digeſt or make ſeparation thereof, as it can on Vegitation; neither do ſuch things generate ſo good Blood, or fine brisk lively Spirits; for this Cauſe, fat Foods lye long in the Stomach, and ſeem to ſatisfie it, not that they afford more

more or better Nourishment, but the reason thereof is their Oilinesse, as is manifest in all External Operations, for what *Menstruum* will easily separate and dissolve fat oily things. The like is to be understood of the Stomack; for this Cause a Man may eat double the quantity of lean Foods as he can of Fat, and yet be more brisk, lightsom, and airy, and sooner an hungry again, especially when used thereunto. Besides, fat Foods do not only fur the Passages of the Ureters, and generate evil Juices there, but in all or most phlegmatick Constitutions, Obstructs the Stomack, causing Coughs, and great increase of Phlegmatick Matter, whence grosnes and fatnes in such People does proceed; and the only and most principal Foods to prevent such inconveniences are simple Vegitations.

Fifthly, Improper Mixtures and Compositions are to be avoided, as also Baked, Fryed, and stewed Foods, and not to eat any thing hotter than your Blood, and in Summer let all your Foods be quite cold, only Spoon Meats may be eaten as hot as Milk from the Cow; for whatsoever Food is taken

hot

hot, as the general Cuſtom is, the ſame is contrary to Nature, and does generate bad Blood, *viz.* makes it hot, ſharp, and ſaltiſh, which will manifeſt it ſelf by breaking out in various Spots on the Fleſh and Skin, commonly called *Symptoms of the Scurvy*; therefore conſider the great and moſt wonderful work and myſtery of Nature in Generation, and making of all Creatures, which is performed by a due heat and moiſture, the heat not exceeding that of our well tempered Blood, which we have treated on more fully in our *Way to Health*. The truth of theſe things, I think, no wiſe man can deny, the ſame being ſenſibly demonſtrated by the Natives of thoſe Countreys, where they live for the moſt part on ſimple Foods, and innocent Drinks, *viz.* Water, which makes them ſtrangers to the Stone, Gout, Conſumption, and to many other Diſtempers that we are moſt generally afflicted with; therefore thoſe that would enjoy Health and long Life (which, amongſt all wiſe men, was, and is eſteemed a great bleſſing from the Lord) and prevent and cure themſelves of theſe Diſeaſes,

eaſes, let them, I ſay, apply themſelves to ſimple Meats, and ſuch Drinks as are before preſcribed, *viz.* To eat freely of Bread, Herbs, Gruels, both of Oatmeal and Wheat-flower, and all Foods made of Vegitations, which are of various ſorts, and yet natural and innocent, and every one may by practiſe, learn how to apply them.

A good Drink againſt the Stone, and other Stoppages.

TAke good Chalk, infuſe it in either River or Spring-water two, three, four, or ſix days in open Veſſels in the Air, this is of excellent uſe, and very profitable againſt all Stoppages and aſſid ſharp Juices that are ſubject to gripe the Stomach and Bowels; alſo it purges by Urine; and brings away Gravel and ſlimy offenſive Matter; for Chalk does naturally indue or impregnate the Water with a fine, mild, ſoft, friendly, or milky quality, very good againſt Obſtructions and ſharp ſour Juices, it's taſte is pleaſant and grateful.

The good Houſwife may Brew with this Chalky Water to great advantage, for it makes excellent ſoft, mild Ale, friendly to Nature. This Water alſo will waſh to great advantage, for it will ſave them both Labour and Soap. The Truth is, Chalk is a brave, noble, Virgins Earth, of a Venereal Balſamick Nature and Operation of admirable uſe and profit in the Manuring of all cold, ſtiff, claiy Ground, it is to be preferred before Lime, for one Manuring with Chalk, will continue its Virtues ſeveral years, but the Salniteral Virtue of Lime will not hold ſo long, becauſe in the burning of Lime, the violent harſh Fire of the Kill does totally deſtroy the mild, ſoft, friendly quality, and there does only remain the Original Salt, which is of an hot tart Nature and Operation, drying, and aſtringent; which qualities are very profitable and uſeful in ſeveral Trades and Arts, eſpecially in refining and making white Sugar, and indeed all ſorts of Sugar, it gives it Body and Life, cauſes a Coagulation.

But Chalk, being entire and ſimple, retains a moſt ſweet, allaying, mild, friendly

friendly Virtue, which alſo is one of the beſt things for Manuring Fruit-trees that ſtand in wet, cold Ground, to render them fruitful.

So Chalk being powdered, and put into Vinegar or Lime-Juice, it will preſently ſet it into a Firmentation, and in a very little time it will allay or drink up the ſharpneſs or aſſidity thereof, ſo that it will become almoſt mild; alſo being put into the fierce, corroding, keen Spirit of Salt, it will in ſome meaſure allay its fiery ſharpneſs. Likewiſe, if the powder of Chalk be put into hard Stale Beer, Sider or Mum, and ſtir, or brew it together, and then let it ſtand two or three Minutes, and it will preſently ſettle; it will drink new, mild and pleaſant, and alſo very wholſome and palatable, ſo wonderful is its qualifying, friendly, mild Nature, and without doubt, it does contain many great Secrets (the diſcovering of which is not ſuitable to this place) what is ſaid, being ſufficient to inſinuate the uſefulneſs thereof, both in Husbandry, and Houſewifery, and Phyſick, in which laſt Reſpect, for the preſervation of

Health, I recommend it to all People, especially to those that are subject by Nature or Accident to those terrible Distempers, the Stone and Gout. Furthermore, 'tis a common Experiment when People are troubled with the Distemper, vulgarly called the Heart-burn, to beat or powder a little Chalk, and put it to Water, and drink it, which gives them ease; but the reason of the Cure few considers. I conceive that that Distemper does not so properly afflict the Heart, as resides about the Orifice of the Stomach, arising from a sharp, keen, sour, burning Humour or Firment, occasioned by Excess, and ill Digestion, which seems to inflame those parts; now the drinking of Water, in which Chalk is infused, does by its mild Balsamick Virtues, allay, or mitigate that short severeness or violence, and thereby gives the Party ease; for if it hath such a power, when only outwardly infused in stale Beer, Syder, Mum, Wine, or Vinegar and other eager Liquors, 'tis but reasonable to believe it will have no less signal Operation, when taken in a proper quantity inwardly, where the friendly powers

powers of Nature are ready to assist, & help to advance to the highest Mergie, for removing and subduing that which before afflicted and oppressed them.

A good and profitable way for the Poor, and wholsom for the Rich, to make Cherry-wine, or Drink of Goosberies, Currans, Apricocks and Plums, being easie and wholsom, pleasant and cheap. There being but one way and manner in the making and operation, therefore one Example will serve for all.

TAke ripe Cherries, Goosberries, Plums, Currans, or any of the like Fruits, bruise them in a convenient Vessel, then put them in a Pub, such a one as you mash your Mault in when you brew, with a Tap in it, then put what quantity of good Water, (*viz.* cold) as you please, as you would have your Drink, small or strong; let these Cherries infuse twelve, fourteen, six-

teen,

teen, or eighteen hours, then draw it off, and if it be to keep, infuſe ſome bitter Herbs or Seeds in it three hours; but if it be for preſent drinking, then *Balm*, or any other good Herb: After this, add to every Gallon two or three Pound of Treacle, or two or three Pound of Sugar or Honey, but if you would have it very ſtrong, then add more ſweetning; then take ſome Yeſt or Barm, and put it a working, as you do Beer or Ale. The ſame Method you may obſerve in all other Fruits, as Goosberries, Currans, and the like. This ſort of Drink or Wine is to be preferred before that which is made of the whole Juice, eſpecially if your Sugar be good; it drinks finer, and is lighter on the Stomach, and more warm, not ſo apt to ſend Fumes into the Head, and will digeſt any ſort of Food much better than that which is commonly made.

There is another way of making this ſort of Drink, (*viz.*) Take good Water, and make it ſcalding hot, put it into your Maſh-tub to your bruiſed Fruits, and let them infuſe one hour, then draw it off, infuſe your Herbs or

Seeds

Seeds in it, if they be bitter half an hour, if not, then an hour, then put it a cooling as you do Wort, and then put your Sugar, Treacle, or Honey, what quantity you think fit, or as you would have it in ſtrength, then add ſome Yeſt, ſtir it well together, and it will firment or work, and ſo barrel it; but cold Water from the Fountain is to be preferred before hot, and is much a briſker Wine.

Theſe are eaſie, cheap, familiar ways, and makes moſt excellent Drink. If your Fruits be of your own Growth, it will then ſtand you but in a ſmall matter, very little more than ordinary Beer, and be much ſtronger. This ſort of Drink every poor Man may have; and indeed it is a better, and more wholſomer Drink or Wine then the common ſort made by preſſing; for Water is the Homogeneal *Menſtruum* in the World, and moſt familiar to Human Nature; and by this way of Operation, it mildly and ſweetly draws forth all the good Virtues of the Fruit, without force and violence, and leaves the harſh, bitter aſtringency of the Stones and Skins behind; whereas preſſing doth by its violence force forth

the bitter harſhneſs, both of the Stones and Skins, and is very hurtful, as is clearly ſeen in Cyder and Wine, for the Stones and Skins are of a harſh, bitter aſtringent Nature and Operation; for hard bruiſing, and violent preſſing tender Fruits, do not only extract and force forth the harſhneſs of the Stones and Skins, but it does as it were ſuffocate or diſmay the fine, lively, ſpirituous qualities, which your Senſe of Taſting will tell you. Taſte the Fruit before it be bruiſed or preſſed, and then the Juice that proceeded from them, the Juice drawn out by our mouth is fine, brisk, and penetrating; but the Juices preſſed out are dull, heavy, and groſs to the Palate and Stomach. The ſame is manifeſt in the Juices preſſed out of green Herbs; for Example, Take what ſort, or ſorts of Sallad Herbs, bruiſe them to maſh, then take them and diſh them into a Sallad, and they will be ſo groſs, dull, heavy, and fulſom to both Palate and Stomach; but thoſe ſame Herbs that are diſhed up into a Sallad, which are not bruiſed, will be moiſt, pleaſant, and grateful. Now here you ſee that this

this hard bruising and pressing, hath as it were wholly destroyed the brisk lively Virtues, and indeed all that is desirable or delightful both to the Senses, as well as to the Stomach.

Note, that the forementioned Drinks that are made of Water, Herbs, Fruit, Sugar, Treacle, or Honey, are best with cold Water, as I have told you before, especially in hot Countreys, for fired Drinks are no Friends to Nature, except wisely handled; therefore the Natives of those Climates, where they drink Water, are not known to have the Stone, and where their Foods are simple, which all wise Men ought to consider.

Lastly, Note that all sorts of Cyder would keep much better, and be far wholsomer, especially for ancient People, and such as are more or less subject to the Stone or Gravel, if when it is new made you infused in part of it, some bitter Herbs, gathered and prepared as we have taught in our *Way to Health*, *viz. Wormwood*, *Hops*, *Carduus*, *Centuary*, *Sage*, *Betony*, *Dandelion*, or the like, for the bitter quality does naturally hold the sweet Body and volatile

latile Spirits, as it were, captive, for *Mars* loves *Venus*, alſo bitterneſs does mightily withſtand and moderate the keen, aſtringent, hard, harſh properties, that they cannot advance nor devour the ſweet, mild qualities; for this cauſe all bitter Herbs do preſerve all ſorts of Drinks, and keep them from ſharp hardneſs and aſtringency, longer than otherwiſe they would. Beſides, they are wholſom, pleaſant, and healthful when People are uſed to them.

Alſo good ſtore of ſuch Herbs, whoſe predominant quality ſtands in bitterneſs, ought to be infuſed in all Drinks made of Sugar, Mallas, Treakle, or Honey, becauſe ſuch Liquors or Drinks tends to a ſharp keenneſs ſooner than Drinks made of Mault, which our Engliſh, and others, ought to conſider that inhabits the *Weſt Indies*, and other hot Climates, where they frequently make various ſorts of Drinks with Sugar, Mallas, and Fruits, and where alſo they are terribly afflicted with the Stone, Gout, and Gravil, *viz.* which all or moſt Drinks made of Sugar or Mallas are apt to generate; for the higheſt Sweets, when

firmented, either in Liquors, or in the Stomach, quickly tends to the higheſt ſharpneſs and keen harſhneſs, eſpecially in ſome Conſtitutions, if the ſweet quality be not in ſome degrees allaid or captivated by the bitter, which do alſo moderate or withſtand the aſtringent Band.

Having had Experience and certain Knowledge of the Virtues of theſe Preparations, I thought it my Duty to Communicate to the World, for the benefit of ſuch as ſhall pleaſe to make uſe of them, and for ſuch as ſcorn and deride them, they ſhall, though they ſlight my poor Advice, injoy my Cordial Pity.

AN

APPENDIX,

SHEWING

The Natural Causes why Fruit-Trees do so frequently fail Bearing and Offering Expediments to make Orchards almost constantly fruitful. With a new Experiment of preserving of Eggs sweet and good for several

HAving in our other Writings occasionally discourſed of Syder, and how advantageouſly the ſame might be made, eſpecially to Farmers and poor Country People, I ſhall here take leave to add a few Conſiderations touching the Fruit-trees.

'Tis certain, that planting of Orchards, as it is a thing of great Delight,

light, and but of little Labour, and that moſt Natural and agreeable unto the firſt Commandment of our Creator, ſo it might be as profitable an Imployment of Ground as any whatſoever. The only thing, I conceive, that diſcourages many People, is, That Fruit-Trees, eſpecially old planted, ſeldom brings any conſiderable Crop; for if they bear full one year, its odds but the next they miſs, nay often, till the third and fourth year after, they yield not any conſiderable quantity of Fruit, the reaſon of which is commonly attributed to great Froſts, ſharp Winds, uncouth Seaſons, Blaſts, and Bliths from unwholſom Air, and ſuch like External Accidents. But I conceive the true Reaſon is more natural, conſtant, and ſetled, and being once known, might without much difficulty be remedied from things known, we by an equality of Reaſon, may probably gueſs at like things, thô unknown. Now methinks, in the Husbandry of Corn, we have every day Inſtances, very probable to this of Trees, only what is conſtantly practiſed in one Caſe, is not regarded in the the other.

It is a Rule in Husbandry, not to Sow one sort of Grain or Corn two, three, or four years on one piece of Ground. For example; Break up Ground, if it be good, strong, loomy Earth, they will sow Beans; if weaker, or light, Oats; after the Beans or Oats, Wheat; after Wheat, Barly; after Barly, Pease or Rye. But if the Land be dunged every year, or every other year, then you may Sow Barly or Wheat, Beans or Pease two years together, because the fresh dunging of it does add or strengthen the Salniteral Properties or Virtues, which was much spent or weakned, or drawn forth by the former years Crop. Nor does any discreet Husbandman expect a good Crop of any Grain, if he Sows it several years together on the same Field, except he dung it; nor will that do, if he persist in Sowing one and the same sort two, three, or four years one after another; for the Dung cannot repleniſh such Land with a sufficient quantity of that Natural Salniteral Virtue, Fat or Juices that is proper for the Nourishment and Augmentation of the same kind of grain so often repeated. Thus

Thus 'tis plain that each ſort of Grain (and conſequently every other Vegitation, of what Species ſoever it be) does by Simile attract and draw unto its ſelf, out of the Bowels of the adjacent Ground wherein they grow, ſuch a particular Nutrative Virtue or Juice, as is proper and natural for the Nouriſhment and Propagation of its own Body: And tho' every ſort of Corn, and other things, has, and is indued with all the ſevenfold Forms and Properties of Nature, yet in each thing there is ſome one quality or property that is chief, or moſt predominant, and which does draw from the Earth what is agreeable to its ſelf, and ſo leaves the contigious Ground barren or poor, as to the particular Juice, tho' yet ſtill by a general Salniteral fatneſs, may be in very good heart, ſtrong and apt to produce Vegitations of another kind, if one and the ſame Corn be continued, it will prove thin, poor, weak, and dwindling, anſwering neither the Hope nor Charge and Toyl of the Husbandman, (but if another Corn, tho' ſuch as naturally requires a richer

Mould than the other) be ſowed there, it ſhall flouriſh; nay, tho' you dung your Land frequently, yet if you ſow the ſame Grain more than one year, if the Seaſon prove not extream kind, ſuch Corn will be apt to fail, and come to little, as often happens near *London*, where they dung their Ground much, becauſe they Till it every year, and many times twice a year: So that if Husbandmen ſhould continue one ſort of Grain for ſeveral years together on the ſame Land, there would be as great or greater Scarcity and Want of Corn, as there happens to be of Apples and other Fruits.

For what we have obſerved in the Tilling and Manuring Land for Corn, and the method of making the Ground conſtantly fruitful, by changing the Species of the Grain committed to it, holds good (as to the former part) in all kind of Fruit-Trees, but the ſame method (as to the latter part) for the Remedy cannot be obſerved in the management of them, as in Land for Corn, and therefore they often miſs, and much the oftner for not being ſo well ordered and manured as they

they might and ought to be. In Husbandry you change your Grain, and often dung your Land, whereby it is in some measure furnisht with a Recruit of every sort of Juice; but Trees cannot be every year or two transplanted out of one ground into another, nay, scarce at all when they grow big, but are commonly continued thirty, forty, or sixty years, or more, in the self same Place or Grounnd. Now Trees being generally planted near together (which by the way is a very great Error in planting of Orchards, robbing each other, not only of nourishment from above) and being of great Bulk and Substance, large Roots and spreading Branches, they must needs require great store and quantity of Nourishment to support their Life, Growth and Fruit, even much more than most sorts of Earth can administer, for every Tree doth powerfully draw forth of the Earth such a Salniteral Virtue or Juice, as is proper to Maintain and Nourish its own Body, which no Earth can continually afford, except it be much helped by Art; for as we have shewed in the Management

of Land for Corn, ſo the Ground, where Fruit-Trees grow, will in proceſs of time become poor, ſour, and hungry, as to the Virtue that is proper for the Nouriſhment and Support of Trees, and therefore they are not able to bring forth or bear Fruit every year. The very ſame Inconveniences would happen to Corn, if the Land were not often dunged, limed, or the like, and the Grain changed frequently; therefore the principal Cauſe why Fruit-Trees do ſo often blight or miſs bearing, is not ſo much from External cold ſharp Airs (tho' they may ſometimes do miſchief, or at leaſt help forward the evil) as Internally, for want of ſufficient Nouriſhment; for if Land cannot bring forth good Crops for ſeveral years, one after another, of the ſame Corn, which is inconſiderable, as to Subſtance and Bulk, in reſpect of Fruit-Trees) how then can it be expected that an Orchard ſhould bear plentifully every year, where there is neither Change, nor Tillage, nor Dunging, it may be for the ſpace of thirty or forty years; and many times the Trees planted too thick, that

the

the Sun Beams can hardly influence the Earth. 'Tis true ſome Trees will bear every year, others every other, and ſome every third year, according to the Nature of the Earth and Fruit, for that year or two that they bear not, is as it were a Sabbath unto the Earth and Trees; or like Land when it lies fallow, in which time they get heat, and repleniſh themſelves with ſtrength and virtue, which inward virtue does withſtand all ſharp and pinching keen Airs, that they hurt not; for if the Internal Salniteral Virtue or Radical Moiſture be ſtrong, whence all Vegitations hath its vigorous Birth, then there is little or no danger of Outward Accidents; but on the contrary, when the Inward Oyl and Nouriſhing Juices are weak and impotent, then every Outward ſmall Accident, as Froſts, cold ſharp Winds, and the like, do take place, and help forward the Evil. The like is to be underſtood in the Human Nature, and Animal Kingdom: If a Man be of a craſie, impotent Conſtitution or Nature, then every cold Air or little Accident will wound his Health; or if any particular

Member or Limb be weakned or disordered, that same part, upon any Outward Heat or Cold, or other Accident, will suck in the Injury, and be easily made more weak and impotent, which does hold good in all things, whether Vegitations or Animals, according to the Nature of each; for this Cause it often happens, when we have very warm, mild, Springs, little or no Frost, or sharp Easterly Winds, (which of all are esteemed the most pernicious to Fruit) that there is but little Fruit the following Summer: On the contrary, other years, when there happens cold North, and North East Winds, and severe Frosts, great store of most sorts of Fruits, the truth of this every Country-man does know; and yet for all this, all their cry is, All our Fruit is blasted in one frosty cold Night, or a sharp Wind, never so much as considering, that other years they have had great store of all sorts of Fruit, and yet far colder and sharper Springs; but most People do in this, as they do by themselves, every Disorder that happens to them, they attribute to outward Cold and Acci-

dent

dent that comes that way, and hardly think of the inward Cauſes, Intemperances and other Violences they offer to Nature, whence moſt or all Obſtructions does ariſe and proceed, as we have largely demonſtrated in our other Writings.

The truth of what we have before declared, is further manifeſted by this, *viz.* If you cut down an old Orchard, and cleanſe the Ground as well as you can from the Roots, and then plant young Trees in the old ones places, neither the one nor the other will thrive, nor come to any Maturity, but are very Scrubs, and often dye, and come to nothing, at leaſt not thrive, or grow ſo much in ten years as thoſe in new Ground will in three or four; the chief Reaſon thereof is, becauſe the Ground in which old Orchards ſtood, is as it were deſtitute of, or contain very little of that Radical Juices or Salniteral Virtues, that is proper for the Nouriſhment of ſuch Fruit-Trees (ſince the foregoing Trees) but all new Ground, eſpecially ſuch as is proper for Fruit-Trees, does abound, and is impregnated with that Salniteral Juice and Virtue,

tue, as is clear by the thriving and proving of Trees there planted. Moreover, moſt or all old Orchards, the Boughs, Limbs, and Branches of the Trees are covered with a certain Moſs, of a dry, husky, harſh, aſtringent Subſtance, which does ariſe for want of a proper quantity of Nouriſhment, that ſtops the Paſſages and Pores, hindering the true Circulation of the Radical Moiſture, and then the Eſſential Juices becomes tough, and as it were ſtagnated, which preſently deſtroys the lively Complexion and Beauty of that thing; and whenſoever this happens in Trees, preſently a moſſy Scurf grows on the Limbs and Boughs, like unto Scurf or a mangy Diſeaſe in Animals; for when the Ground, by the long ſtanding of Trees, grows poor, hungry, and barren, as to the virtue thoſe Trees delight in, then that Nouriſhment that they do draw forth is not good, neither doth it generate good Juices, and the Trees begins to languiſh, and become Conſumptive, which is the true Cauſe of Moſs, Cankers, Bliths, and the like; and yet that ſame Ground, if Manured for other things, as Beans, Peas, and the like,

like, will bear great Crops, for it was rich enough in that Salniteral quality that was proper and natural for the Nouriſhment of ſuch Grain, but poor and out of heart in reſpect of Trees, but if you cut down an old Orchard, and Manure the Ground for various ſorts of Corn, and Dung it as other Land for eight or twelve years (the longer the better) then plant a young Orchard, the Trees will thrive pretty well, for in this time the Earth hath recovered, and ſtrengthened the weak and fading Salniteral Virtues proper for Trees, but not ſo ſtrong and vigorous as that Ground that never had Fruit-Trees planted in it. But here ſome will object, Why ſhould not Fruit-Trees thrive, and bear without manuring and dunging, as well as other Trees, *viz.* Oaks, Elms, Hazels, and the like, which will grow in one ſort of Ground without any dunging, or manuring for many ſcore years. I Anſwer, 'Tis to be underſtood, that all ſuch Ground, in which Oaks, Hazels, and the like, grow, is principally indued with ſuch a quality, as is proper to bring forth and nouriſh ſuch Trees,

tue, as is clear by the thriving and proving of Trees there planted. Moreover, moſt or all old Orchards, the Boughs, Limbs, and Branches of the Trees are covered with a certain Moſs, of a dry, husky, harſh, aſtringent Subſtance, which does ariſe for want of a proper quantity of Nouriſhment, that ſtops the Paſſages and Pores, hindering the true Circulation of the Radical Moiſture, and then the Eſſential Juices becomes tough, and as it were ſtagnated, which preſently deſtroys the lively Complexion and Beauty of that thing; and whenſoever this happens in Trees, preſently a moſſy Scurf grows on the Limbs and Boughs, like unto Scurf or a mangy Diſeaſe in Animals; for when the Ground, by the long ſtanding of Trees, grows poor, hungry, and barren, as to the virtue thoſe Trees delight in, then that Nouriſhment that they do draw forth is not good, neither doth it generate good Juices, and the Trees begins to languiſh, and become Conſumptive, which is the true Cauſe of Moſs, Cankers, Bliths, and the like; and yet that ſame Ground, if Manured for other things, as Beans, Peas, and the like,

like, will bear great Crops, for it was rich enough in that Salniteral quality that was proper and natural for the Nouriſhment of ſuch Grain, but poor and out of heart in reſpect of Trees, but if you cut down an old Orchard, and Manure the Ground for various ſorts of Corn, and Dung it as other Land for eight or twelve years (the longer the better) then plant a young Orchard, the Trees will thrive pretty well, for in this time the Earth hath recovered, and ſtrengthened the weak and fading Salniteral Virtues proper for Trees, but not ſo ſtrong and vigorous as that Ground that never had Fruit-Trees planted in it. But here ſome will object, Why ſhould not Fruit-Trees thrive, and bear withont manuring and dunging, as well as other Trees, *viz.* Oaks, Elms, Hazels, and the like, which will grow in one ſort of Ground without any dunging, or manuring for many ſcore years. I Anſwer, 'Tis to be underſtood, that all ſuch Ground, in which Oaks, Hazels, and the like, grow, is principally indued with ſuch a quality, as is proper to bring forth and nouriſh ſuch Trees,

and consists chiefly thereof, and therefore such Woods will grow naturally there without planting as well as without manuring. So all good Ground will always bring forth Grass, more or less, as the Season is kind, or the contrary. But our Apples, Pears, and most sort of Wall-Fruit, does not so naturally grow in our Climate, any more than several sorts of our Garden Herbs, which, both Trees and Herbs, are all managed by Art, and great Industry, or else they will dwindle away and come to nothing, though Field Herbs are plenty enough naturally, so that every thing must be managed according to its kind, and there is no parity between Fruit-Trees and other common Trees, both for the Reason just now given, as especially because the latter does not bear any Annual Crop as the former, but if the Trunk and Branches live and grow, its enough, whereas you expect much more from your Orchards, and therefore must be at more pains with it. Sometimes you shall see in the Spring, a Tree bravely blossomed, and yet at Autumn no Fruit; the Reason is commonly ascribed to Blasting or Frosts;

but I believe it may moſt times be referred to the Cauſe before-mentioned; for in the early Spring the Sun giving every thing vigour, the Soil made ſhift to ſupply the Tree with Radical Moiſture enough to make that ſhow, but not being able to continue its Recruits, the poor Tree could not perform it's Promiſe, nor Nature accompliſh its Intentions. But you'l ſay, What Remedy for all this? Can you ſhew a Natural way to keep and render Trees capable of bearing every year, or for the moſt part. I Anſwer you, and it is thus: Dig three, four, five, or ſix yards about each Tree, to the Root, carry away moſt of the Earth, and ſupply the place with freſh Earth mixed with a little Dung, a like quantity to which you carried away, and this you ought to do every three, four, or five years, or as often as the Farmer dungs his Land for Corn, which will give ſuch Life, Power, and Virtue to your Trees, that you need not much doubt of a Crop every year, or at leaſtwiſe it will ſeldom miſs, and your Fruit will be large and fair; but if this be too much trouble and charge, then dig or trench

your Orchard, and Dung it well once in two, three, or four years, which may ſerve indifferent well. The very ſame management ought to be obſerved in all ſorts of Wall-Fruit-Trees, and others. It is alſo to be Noted, That when you plant Orchards or Walls in poor, hungry Gravel, or hot Sandy Ground, then you ought to Trench your Ground very deep, and at the bottom to lay ſtore of good black Mould, or Earth mixed with Dung, and then turn in the uppermoſt or ſurface of the Earth, and carry away the undermoſt Gravel or Stony Earth, for that is ſo hungry, hot, and lean, that if it be mixed with the good Earth, it will, as it were, eat out or deſtroy the good Virtues thereof; but if you will not be at the trouble and charge of digging up, and trenching all your Ground, then dig large, deep Holes, and carry away the undermoſt Gravel, Sand, or Clay, and ſupply the place with good Earth, or Dung and Earth mixed together, and then plant your Tree in it a proper depth, *viz.* ſo deep as your Tree did naturally grow, for deeper is injurious to the Plant;

Plant; and when you have filled your Earth in about your Tree, within a little, then put a little good Dung round your Tree near the Surface, and cover it with Earth, which will keep the Roots of your Tree cool in the Summer, and warm in the Winter.

It is also to be noted, That if your Ground be hot and sandy, then mix or manure your Trees with good Loom, Dung, and black Earth; if gravelly, hungry Ground, then good Mold and Dung mixed together; if cold claiy Ground, then mix Chalk and Earth together; which, if this Order be observed, it will mightily advance and cause your Trees, not only to thrive, but bear more and larger Fruit. It is also to be noted, That the old Custom of opening the Earth, and laying bear the Roots of Fruit-Trees in the Winter Season, is an Error in Husandry, except there be immediately the old Earth taken away, and the place thereof supplied with good fresh Earth, or Earth and Dung well mixed, such as Trees have never grown in, as is mentioned before, for that Earth that covers the Roots, are

their natural Cloathing, which do ſecure them from the Injury of the Element, keeping them warm in the Winter, and cool and moiſt in the Summer, the Earth being many degrees warmer in the Winter, than the common Air, but in the Summer as many cooler; therefore the uncovering of the Roots, and expoſing them for two or three Months to the cold pinching Airs, *viz.* Froſt, Snow, Rains, and violent Winds, muſt needs be unnatural, and conſequently prove prejudicial, by weakning the inward Power, and Salniteral Virtues of ſuch Trees, rendring them the more uncapable of Bearing the following Summer. Conſult Nature, and ſhe will teach you the Truth of what we have here declared. Will not all Gardiners, when they dig up a ſmall Tree, as Goosberries, Currans, and the like, if they cannot conveniently plant them preſently, cover the Root in Earth, ſo deep as they did naturally grow, which are inconſiderable Trees, in compariſon of large Fruit-trees, and moſt of them will as naturally grow as Weeds.

Note,

Note, That the moſt natural and proper time for Planting, moſt or all Fruit-trees, is from the middle of *October*, to the laſt of *December*, for by early Planting the Earth and the Roots do not only ſettle well together, and unite, but the Roots do draw and grow, and thereby they are not only more forward, than late planted Trees, but alſo, they will the better endure any hot, dry Seaſon, that may happen the following Summer. The ſame time or ſeaſon is to be obſerved in Pruning and Cutting ſuperfluous Branches, the earlier in the year it is done, the better; for every Branch or Limb that is cut off from the Body is a certain Wound, and the Tree cannot recover that Injury till it has paſſed a Spring and Summer; the truth of this is demonſtrated by their not Bearing ſo plentifully the following Summer; therefore the earlier they are pruned, the more time they have to recover ſuch incoveniences; and if you do cut off any eminent Limb or Branch, then you ought to take the ſame compoſition of Earth you uſe in Grafting, which is generally done

with good Loomy Earth, mixed with a little Cow-dung tempered well, then cover or Plaiſter the cut Limb or Branch, which will keep the Wound or Place warm, and heal and preſerve it from the Injury of a ſevere Winter, as cold, ſharp, pinching Airs, Froſt and Winds, penetrating Rottenneſs and Rankneſs, and other Diſtempers that often happens to ſuch wounded Parts.

The like is to be underſtood of the laying of the Roots of Trees open, as is mentioned before, and expoſing them bare-faced to a ſevere Winter, and Injury of the Elements, as extream Cold, Wet, and Winds, for under the Surface of the Earth the Natural heat is not only greater and ſtronger, but more conſtant than the common Air in Winter Seaſons, which is vary'd and changed according as the Eye of the World increaſes or decreaſes, and from what quarter of the Heavens the Wind blows; which is further manifeſted by moſt or all Fountains and Springs, which in Summer or hot Seaſons, the Waters proceeding out of the Earth, at the head thereof are many

many degrees colder than the common Air; or the Waters of other Rivers that runs on the Surface of the Earth; but in Winter, or in cold Seasons, at the head of the same Springs or Fountains, the Water thereof is as many degrees warmer than either the common Air, or the Waters of Rivers that runs on the Source of the Earth; for this cause, in cold Seasons, or in Winter, we can see them send forth Fumes and Vapours, which is chiefly occasioned by the Contrarieties of the Two Qualities, *viz.* Heat and Cold; not but all or most Fountains, Springs, Rivers, and other Waters, and also the whole Earth, do continually and at all times, more or less, breath forth Fumes and Vapours, the degree thereof is according to the Nature and Constitution of the Elements, Season of the Year, and Cœlestial Influences; though these Vapours and Fumes which the Sun and Celestial Bodies do continually exhale, cannot be seen but only when the Air is colder than the Earth, which cold keen Air does immediately condense those Vapours, that they may become visible; but

when the Earth and Air are of an equal Temperature, then you cannot see those Fumes no more than you can see your own Breath in a warm Season; but you must not conclude that you do not Breath, because you do not see it; and it is as natural for the Earth and Water to breath and send forth Fumes and Vapours as for Animals, and they do arise and proceed from the Centeral Life of Nature, and are the living Powers of the Elements, for without Motion nothing could subsist, neither could the Earth, Waters, or any of the Elements generate or bring forth any living Creatures, if they had not this natural Motion, there being a continual sympathetical Operation and Mixion of all Qualities and Elements. But it is to be noted, That some sorts of Grounds and Waters, and also in some Seasons of the Year, those Fumes and Vapours are more plentifully sent forth than in other; as after an hot Summer, in *August*, *September*, and *October*, the Elements then being moist and full of Humidity, occasion'd by the Declination of the Sun, the Days warm, the Nights cold, which do condense

denſe thoſe warm vapors that the Earth and Waters breaths and ſends forth: Now theſe Streams or Breaths, which are nothing elſe but the natural Motions of innate Life and Operations of Nature, are better or worſe, good, or bad, healthy or unhealthy, according to the Nature and quality of the Waters, and ſituation of the Ground, which they proceed from. Now theſe Steams and Vapors that ariſes and proceeds from clear Fountains and Springs, or from running Rivers, eſpecially ſuch as have Flux and Reflux, as the River of *Thames*, and many others have, are fine, moiſt, thin, and penetrating, and are powerful openers of Obſtructions, and great preſervers of Nature, and begets Appetite, and are good againſt Aſthmatical Diſtempers of the Breaſt, eſpecially if the quality and quantity of Meats and Drinks be carefully obſerved; but the contrary is to be underſtood of thoſe Steams and Vapors that ariſes and proceeds from low boggy Grounds, Pools, ſtanding Waters and the like, which do agree but with few Conſtitutions, except ſuch as are born and bred in ſuch places;

and

and though good Airs are great preſervers of Health, yet Temperance and Order hath the firſt place, and ought to be regarded above all other circumſtances, and if that be wanting, other things and obſervations ſignifies little. It is alſo to be noted, That all Waters do more plentifully breath forth Steams and Vapours than the Earth, as being more penetrable, thin, and tranſparent, and therefore more capable of receiving the Light and ſweet Influences of the Cœleſtial than the Earth, which is a cloſe, firm, compacted, dark Body in compariſon of the Element of Water; therefore the Vapours proceeding from the Earth are heavier, duller, and fewer in quantity, but not ſo thin nor penetrating in quality as theſe from the Water; for this Cauſe thoſe Perſons, whoſe Imployments are in and about Waters, have for the moſt part greater Appetites than others, and are more lively, brisk and ſtrong. Therefore it is very good for all People that are afflicted with ſhortneſs of Breath, Stoppages at the Stomach, or overfatneſs, to imploy themſelves on Waters, or uſe themſelves to walk by River ſides,

ſides, as much as they can, in all Seaſons of the Year; but more eſpecially in Spring and Summer; for thoſe fine, thin, cool, penetrating Vapors, are as it were ſuckt in on all ſides of the Body, which do render thoſe, whoſe Imployments are abroad, brisk, lively, and healthful, more eſpecially in moderate Seaſons, and when the Air and Elements are a little inclinable to Humidity, which do mightily rarifie the Air; and make it more penetrating, and all Men and Beaſts are not ſo ſubject to heat and drought, and other Indiſpoſitions, as in hot dry Seaſons; for heat and drought do not only, as it were, cloſe up the Pores of the Earth, but it thickens and ſtagnates the Air, conſuming the fine, thin, moiſt, penetrating Vapors and Spirits, making them thick, hot, and ſulpherous, and hinders the Natural Motions and Circulations of the Elements, and their Salniteral Virtues. Now this Motion, Circulation, and continual Sympathetical Mixtion of the Elements, is further manifeſted by the Sea, which is the Center of the Element of Water, the Moon being the Governeſs thereof, ſhe having a certain, ſecret, Influence,

according to her Increaſe, Decreaſe, and Configurations ſhe hath with the Cœleſtial Bodies; for if there were not a continual Motion in this great Fountain, Tides, Flux and Reflux, there could be no Creature generated; or ſhould there be a Ceſſation from Motion but a few hours, the whole would immediately become a ſtinking Lake, and all her Inhabitants would be deſtroyed; for that which we call Tides, is nothing elſe but the Natural Motion and Circulation that proceeds from the Center or Heart, and Animals can as well ſubſiſt and continue there, being without Motion and Circulation of the Blood, and breathing, as the great Fountains of Waters or other Elements, can live or give Being to their Children, without Motion and continual Circulation, which ariſes and proceeds from an innate power of the Elements; for theſe Elements are the great Body and wonderful Powers of God, and by his centeral Word and innate Virtue all things, both in the Animal, Vegitable, and Mineral Kingdoms, have been, and are made, generated and preſerved; for the whole Globe of Earth, Water, Fire and Air

Air, are the living Powers of God, in which his holy Word do continually create and bring to manifestation the hidden Mysteries and Wonders both of Time and Eternity, to his Eternal Praise and Glory, and his Work goes alway on in exact Number, Weight and Measure; for in God, nor in his Handmaid Nature, there is no such thing as standing still, or idleness; for should the *Primum Mobile* cease from its Natural Motion and Circulation, but a few Minutes, the whole *Mundam Sistime* would be ready to sink into Confusion; for standing still, or idleness, have no sympathy either with God or Nature; for the Heavens, Stars, and Elements, with the wonderful and amazing Varieties of Beasts, Fishes, Vegitation and Minerals, wherewith the lower Worlds are endued and furnished, are the living Powers and Works of the Lord, and are still continued by his All-wise Providence and Divine Word, which is never idle; for Idleness, as is said before, is allowed no being, either in the Internal or External Worlds; all in the beginning was brought into a Being, through Labour and Motion, as the

Learned *Moſes* ſaith, *The Lord moved himſelf on the Face of the Waters*, and they are ſtill ſuſtained to this day by the ſame acting and working Power of the Creator. Conſider the daily Motions and Circulations of the Cœleſtials, *viz.* Sun, Moon, and wonderful company of Stars, their Riſing, Setting, continual Motion, Courſes, and various Configurations, and all in exact Order: Behold the Fountains, Springs, and Rivers labouring continually in a long progreſs to pay their Tributary Streams to the Ocean; and the Ocean by induſtrious Tides, Flux and Refluxes, ſtriving as it were, to ſupply the Land from its innate or central Power. Do not the great Eye of the World by a ſympathetical Power, and univerſal Motion of all Elements, exhale Moiſture from the Fountains of Waters, and bottle it up in the Clouds or Powers of God till an appointed time, and then Return it with plenteous Uſury, to Water and make fat the Earth with the Dew of Heaven? And are not the like Circular Motions and variety of Powers underſtood in Man? And is not he a little World out of the great? In him

is

is contained the true Nature and Operation of all Elements; and yet, what great Matters can he do or perform without Motion and Action? Are not all these necessary things that serves for the support and accommodation of Human Life; are not, nor cannot be procured without Labour and Motion? Nay, Life it self cannot otherwise be maintained, the Blood must always be circulating, the Pulse, Natures Clock, continually striking, the Stomach must labour hard in her Kithin to dress, and prepare, and separate Aliment; for the other Parts, the Lungs be busie in Transpiration, the Heart sending forth Reserves and new Supplies of Spirits to all the Frontier Garisons and remote Limbs of the Body, whilst the Brain is no less solicitous to give the necessary Orders from the Grand Councel, held between the Understanding, the Will, and the Judgment, whereunto Intelligence every Minute arrives from the five Sally Ports, called the Senses, and all their Results are carefully Registred, and treasured up by the Recorder, Memory; nay, should the hands grow sluggish, and neglect the supplying the

Stomach with Food, the Mouth would ſoon be open to upbraid their Lazineſs; from all which, 'tis apparent, as if written with the Sun-beams, that ſtanding ſtill or idleneſs hath no Being in God, nor in his Works, but all the Elements, and other numerous Offſprings, do labour with higheſt Diligence for to manifeſt the wonderful Myſteries of their Beings, which all Mankind ought ſeriouſly to conſider, and by induſtrious Courſes of Life, in the Ways of Virtue by which he may advance and bring to light the Treaſures of his Soul, and good Talents the Lord hath indued him with; Idleneſs being a greater Evil than moſt imagine; it breaks the firſt Command of God, and contradicts the whole Courſe of Nature, and is the Mother of Oppreſſion and Violence; a Sin that never goes alone, but attended with a black Train of Vices, always ſubject to the groſs inferiour Powers and evil Demons; which continually prompt him on to commit all kinds of Outrages againſt God and his Law in Nature, and is the firſt to all Evils.

There

There is a reserved Opinion amongst, not only both ignorant Country-men, but even those that pretend to Learning, That at the latter end of Summer, about *Michaelmas*, that the Sap, or Essential Virtue in Trees, does fall down or retreat into the Root, and at the return of the Sun in the Spring it ascends again, and replenishes the Tree, and all its Branches. But this is a very fond, tho' almost general Error; for if this were true, the Roots of all Trees would be indued with a far greater quantity of Juice, or Radical Moisture in the Winter, than in the Summer, whereas the contrary is most evident, *viz.* That there is nothing near so much Juice, Moisture, or Sap in the Roots of Trees in the Winter, as there is in Summer, or at leastwise, not so much manifested. The like is to be understood in the Body and Branches: I refer to any Artist, and let him separate the Parts.

Besides, there is a great Argument to confute this Error, (*viz.*) If the Sap that is the radical Moisture, or Essential oily Property, whence Life, Growth, Light and good Complexion

of all Trees ariſe, and takes Being, ſhould thus deſcend into the Root, and there inhabit all the cold Winter, then it were impoſſible that any of the reſt of the Tree ſhould live; for when that Eſſential Virtue or Sap is withdrawn from any Tree, or part of a Tree, the ſame will immediately wither, rot and periſh, Animals can as well live and ſubſiſt without Blood, as a Tree without Sap, or any part thereof, or of this oily Moiſture: But moſt true it is, that at the Declining or Retreat of the Sun, and approach of Winter, this Eſſential Oil or Sap doth every where Retreat into the main Body, or the Root, but obſconds it ſelf inwardly in every Branch or Twig, and when it is ſtrong and vigorous, the cold and fierceneſs of the Elements cannot hurt it or the Tree; but if it be weak or indiſpoſed, for want of ſufficient or due nouriſhment from the Earth in the Summer before, then the Severity of the Seaſon prevails upon it, and extinguiſhes it, and forthwith ſuch Twigs, Branches, or Tree dies, and no aſcending Sap they talk of from the Root can revive it; but if it withſtands

the

the Winter rigor by virtue of its Internal Virtue, or radical Moiſture, then as ſoon as the Glorious Eye of the World, and natural Parent of Life, returns towards our Zenith, with his cheriſhing Beams, and ſweet Influences, the ſame is ſet at Liberty, and opens Natures Priſoners, unlocks the Doors, and opens the Paſſages, and chaſes away the cold Saturnine Air, and warms every thing and makes it Buxom, Jocund and Active, and by ſimile, kindles and awakens all the chill, ſleeping, good qualities, and incorporating its own Virtues, invites abroad the Sap or oily Moiſture from the Centre, and mildly draws it forth to the outermoſt Parts and Extremities of every Bough, and ſo 'tis puſh'd on to a further growth, and ſpruces it ſelf up in Leaves, and Bloſſoms, and Fruits according to its kind.

The Natural Way how every one may in the Spring and Fall purge themſelves with Eaſe and Pleaſure, to conſiderable Advantage, with the common Sallad Herbs that are generally eaten in theſe Seaſons, and alſo with Roots. One Example will ſerve for all.

TAke as much *Spinage* as will go into a Two Gallon Veſſel, unto which add one Pint of Water, then ſtew it in the ſaid Veſſel uncovered; when it is almoſt prepared, add only Salt to it, then Diſh it up, and drink the Broth, and eat the Herbs freely with Bread, without either Butter or other Fats; make your Dinner of theſe Herbs two or three days together, as you ſhall find them more or leſs Operate or Purge. The very ſame Method you may uſe with other Herbs, either Simple or Compound; and alſo with Roots, *viz.* Take Turnips, cut them ſmall, then ſtew or boil them as you do

do the Herbs, drink the Broth, and eat the Roots with Bread and Salt, without any other Addition, and they will have the ſame Operation; but you muſt obſerve to eat Water-gruel Morning and Night, into which you muſt not add any Ingredient, only Bread and Salt, and made according as we have taught in our *Monthly Obſervations for Health*; and thoſe that do not like ſtewed Herbs or Roots, may boil them, obſerving the ſame method of eating them, and drinking the Broth, and ſo they will in all Reſpects anſwer your Deſires, and Purge you both by Urine and Stool to your great ſatisfaction, far better than moſt of the Potions and Purges preſcribed by the Learned, which for the moſt part are not only Foreign, but compounded of things of a diſagreeing Nature; but our own Herbs and Roots, thus prepared and eaten, are excellent, as well in preſerving of Health, as preventing Diſeaſes, *viz.* By aſſiſting Nature to throw them off when they have invaded the Body; in particular, they are profitable againſt the Stone or Gravel, and Griping pains

of

of the Bowels, by disburthening Nature of ſuch ſuperfluous Matter, and keen ſharp Juices that cramp the Body, they alſo cleanſeth the Stomach and Veſſels thereof, which are generally ſtopp'd and furr'd by the frequent eating of fat ſucculent Foods, and ſtrong Drinks, but the uſe of theſe Herbs does cool and remove the Obſtructions that lies in the Paſſages, preventing Fumes and Vapours from flying into the Head, cleanſeth the Blood, cauſing it to be circulated freely, and chears the Spirits, making the Body brisk and lively, being alſo profitable againſt ſhortneſs of Breath, Phlegm, and all Watery or Dropſical Humors, more eſpecially if Order and Temperance be obſerved; for the beſt Means or Medicines cannot but prove ineffectual when Diſorders, and the ſame Intemperances are continued, which were the firſt Originals of the Diſeaſe, moſt Diſtempers being contracted through the exceſs and inordinate living, nor doth any thing preſerve the Body, and alſo the Mind in health, ſo much as Sobriety and Temperance in Meats, Drinks, and Exerciſes, and not to heap together

ther Superfluity of various ſorts of rich Compounded Foods and ſtrong Drinks of diſagreeing Natures, beyond the Neceſſity, or truly the Digeſtive Power of Nature. The Ancient Wiſe-Men that lived to great Ages in perfect Health, were contented with ſimple Food and mean Drink, and it would be our Happineſs to imitate them. I wiſh I might be an Inſtrument to perſuade my Country-men to ſuch Moderation; and in order thereunto, I do recommend the uſe of the fore-mentioned Herbs and Roots, and alſo to theſe following Obſervations.

A Method how every one may with Eaſe and Pleaſure keep their Body open, and prevent Coſtiveneſs, and being too much bound in their Bodies.

TAke *Spinage*, *Sorrel*, or any other Herbs uſually eaten in raw Sallads, eat them freely every day at Dinner, or every other day raw with your Bread and Butter, and Bread and Cheeſe, or Bread

Bread and Fleſh, and they will certainly keep your Body open, and in a brave, brisk, lightſom Condition, but remember that you eat them as they come from the Garden, without either Salt, Vinegar, or Oyl, for this Compoſition fixes them, that their genuine Nature, or friendly opening, mild qualities are not felt; few are ſenſible of the power of Compoſitions, and how it alters and changes moſt things for the worſe, more eſpecially when the Ingredients are of contrary Natures. And thoſe that deſire to underſtand more of this, may read our *Way to Health, long Life and Happineſs*, where they may have Satisfaction. Alſo Herbs thus eaten, do not only keep the Body in a due Temperature, but they mightily help Concoction, making all ſorts of hard Food eaſie in the Stomach, preventing Fumes and Vapours, eſpecially if a Glaſs of our thin cold Gruel bedrunk, ſo ſoon as you have dined, which you may find taught in our *Monthly Obſervations for Health.*

Obſerving the Grievous Torturing pains many poor Mortals endures by various Accidents that attends Mankind, to the utter Ruin of many Neceſſitous

ceſſitous people, to the loſing of their Limbs, and ſometimes their Lives too, for want of Mony & a Skilful Chirurgeon; therefore I eſteem it no worthleſs ſervice, to recommend to the notice of the publick, the Uſe of this following Poultice, for the ſpeedy and certain Cure of Burns, Scalded Limbs, Boyles, Fellons, Tumors, let them proceed either from Choller, Phlegm, or Melancholly; alſo Cures all Inflamations, Contuſions or Bruiſes, either with or without a Wound, Ulcers, Old Wounds, or Running Sores; and eaſeth the torturing pains of the Gout, Sore-Breaſts, and bites of Dogs, *&c.*

Take one pint of new Milk, and a like quantity of good Water; as much Bread and Mallow Leaves cut ſmall, as will make it thick, fit for a Poultice; add to it 2 Ounces of good Sugar, then Simper them over the Fire, till it be boyling hot, but not boyl, then it is done; apply it as followeth to the part grieved; ſpread this Poultice indifferent thick on a Linnen Cloth that will cover the whole part, a little warmer than Milk from the Cow, but not ſo hot as is uſual, for all Extreams are prejudicial to Wounds, Sores and

Bruiſes.

Bruiſes, except it be on ſome particular Occaſions; this Poultice you muſt apply at firſt every Hour in the Day, and 3 or 4 times in the Night, If the Hurt be Dangerous, if not, 12 or 14 times may do. When your Poultice has layn on one Hour, put it away off your Cloth, and put freſh on, and ſo keep a conſtant Repetition of it for 2.3.4.5.6.7.8. or 9. days, if Occaſion, but it will Heal and Cure moſt of the foremention'd evils much ſooner, but remember to waſh your Wound or Sore between whiles, with Water and Sugar, or ſometimes with Freſh Butter and Water beaten together, to keep it ſubtle and plyant. This is a noble Poultice, and all the Ingredients do caſt a friendly Aſpect to each other; and are of a Balſamick Nature and Opperations, and therefore do ſoon raiſe up the diſmay'd Oyl or wounded Spirits, by meliorating and aſſwaging the irritated or awakened poyſons in ſuch hurts; for by this Method of repeating it ſo often, it doth mightily advance and forward the Cure; and Note that every freſh Application of this Homogenial Poultice to the grieved part, does add freſh Vertue; for the fine healing qua-

lities thereof do first impart and give themselves forth, which by a secret sympathetical power penetrate the whole, and administer their sweet mild Vertues; and give as it were a new life to the wounded Spirits and dismay'd Oyls, and do with great efficacy withstand and allay the irritated poysonous Humours; for it is natural for all Homogenial Bodies, that have passed through any Preparations, Digestions, or Firmentations, when aptly joined or applied to any proper subject or thing, for the fine opening, cleansing, healing, Properties, or good Vertues, to give themselves forth, and incorporate with their similes, even as the fine sweet qualities of Mault do imbibe or give themselves forth into, and incorporate with the hot Water in your Mash Tub, in the Method of Brewing; therefore every application, do add fresh supplies of Vertue and Strength, for the spirits and fine qualities of each thing are so light, volatile, ready, quick, and powerful in operation, that in a minutes time penetrates even to the center; It is not therefore the gross body or substance, that will do your business, for that is dead, and full of corrupt poy-

ſonous Humours; For theſe Reaſons the long lying or continuation of Poultices and Plaiſters on Wounds and Sores, have no better effects, than the long ſtanding of the Liquor on the Mault, which if it continues more than 2 or 3 hours, it will ſpoil the whole; for firſt, as I ſaid before, the fine ſweet volatile ſpirits imbibes or incorporates themſelves with the Liquor; and then if there be not ſeperation made, by drawing it off; but the Application continued, the Liquor awakens another Property, of a groſs, harſh, ſour, or keen nature; which do with rapid motion tinge or tranſmute thoſe fine healing ſweet Vertues into their own qualities; the like is to be underſtood in all applications of Poultices and Plaiſters, which ought to be conſidered, and underſtood, or elſe there can be no certainty in any Operation or Cure; Therefore deſpiſe not this plain homebred Poultice and ſimple method; I could produce many living Teſtimonies of its ſucceſs; but it is needleſs, ſince every ones experience that tries it, will ſoon confirm the truth of what is here delivered; nor am I much ſolicitous whether I am credited or not, it is the conſideration of the publick good it may do to many poor People, prompts me to publiſh it; and whether you will follow the forementioned method or not, I have done my Duty in offering it, and therefore am ſatisfied.

The Contents of this Book.

THe Design of the Author in publishing this Treatise. Page 1

The Office of the Stomach, and several digestions described. 3

The evil Effects of Excess in Eating and Drinking, as to Quantity & Quality. 6

Concerning the generating the Stone and Gravel, Gout, Consumption, &c. 10

The Boiling of Hops, Wort, Beer, &c. very injurious. 12

Firmented Drinks much better new than Stale. 15

Rules for the well-brewing and making good wholsom Beer and Ale. 17

An Experiment demonstrating the Prejudice that Water receives by Boiling. 19

The Mischief of making Drink by a third Infusion of the Malt with hot Liquor. 20

The Quantity of Hops proposed for Brewing. 23

About Ordering your Brewing Vessels. 23

Circumstances to be observed in Cooling & Firmenting your Beer or Ale. 27

Of the Nature of Hops. 30

An Objection against unboiled Beer and Ale, answered. 32

Many Herbs and Vegitations that will serve

in Brewing, as well or better than Hops. 39
What Water is best to make Mault. 45
Of Mault and how it is made. 47
The best Drinks to prevent the Generation of the Stone. 64
Of Cold Gruel. 65
The way of infusing Herbs or Seeds, &c. to the best advantage. 69
How Husbandmen and Farmers may advance their Corn 4 d. *or* 6 d. *per Bushel.* 73
Cautions against certain Foods that generate the Stone and Gravel, &c. 82
A good Drink against the Stone and other Stoppages. 87
A good, profitable, and wholsom way to make Wine of Cherries, Goosberries, &c. 91
An Appendix shewing the Natural Causes why Fruit Trees do so frequently fail Bearing, and offering Expedients to make Orchards almost constantly fruitful. 98
The Natural way how every one may in the Spring and Fall purge themselves, with Ease and Pleasure, to considerable Advantage. 130
A Universal Poultice against Gout, Bruises, Wounds, Tumors, &c. 134

A NEW

ART

Of Making

WINES, BRANDY,

And other SPIRITS,

Compliant to the late Act of Parliament, concerning Distillation.

Illustrated by the Doctrine of Fermentation; By various Examples on the growths and products of this Island.

Wherein is laid down Full and Effectual directions, for the making of wholsome and Medicinal Wines; as also a true and facile way to bring Low Wines into proof Spirits, which being by true Art made from sound Grain, are not inferior to those of *France*; for which reason are several propositions stated for the Encouraging a Brandy Manufacturage here in *England*; Also the way is shewn to exalt these Spirits so high as to bear that proof to fire Gunpowder, and their various uses, especially for *Lacker*, *Japan*, and *Chany Varnishes*, and several other useful Receipts, which were never so plainly publish'd before.

Lastly is subjoyn'd,

A General Treatise concerning the Original and Nature of Diseases, together with their Cure by Spagirick Medicines.

Recommended to all that desire to improve and advance those Liquors which are made from the English Growths.

By W.Y. *Spagirick Physician in both Medicines, and Philosopher by Fire.*

London, Printed for *T. Salusbury* at the Sign of the *Temple* near *Temple-Bar* in *Fleet-street*, 1691.

by Will. Y-worth.